

THE ENGINEERING INSTITUTE OF CANADA

and its member societies

L'Institut canadien des ingénieurs

et ses sociétés membres

EIC's Historical Notes and Papers Collection

(Compilation of historical articles, notes and papers previously published as Articles, Reports, Working Papers or Journals)

"A Short History of the Athlone Fellowship" (Revision 3)

by R. L. Bob Hemmings October 2021

A Short History of The Athlone Fellowship

One of the Finest Examples of UK-Canada Cooperation in Engineering Education

 $\mathbf{B}\mathbf{y}$

R. L. Bob Hemmings

A 1962 Athlone Fellow From the University of Alberta

> 3rd Revision October, 2021

This is not a formal history of the Athlone Fellowship, but a work of reflection, collection, and memory recovery. Names, characters, organizations, places, events, and incidents are either extracts of public documents, information gleaned from hours of internet research, and recovery of memories some of which date back over 55 years. These memories may have been distorted with the passing of time, but reflect the author's concepts of the occurrences depicted. The work uses information from many sources, including letters of some Athlone Fellows, of the current year or two, as well as those that were included in the available Athlone Fellowship Newsletters.

The work is in four parts:

- Part 1 A Short History of the Athlone Fellowship
 Part 2 Letters from Athlone Fellows
 Part 3 Extracts from the Athlone Newsletters
- Part 4 My Athlone Memories

This work is mainly for my wife, my children, and my grandchildren, and for many interested Athlone Fellows.

Copyright © 2021 by RL Bob Hemmings. All rights reserved.

Contents—Part 1 Introduction 6 The Earl of Athlone Obituary7 Report Of The Working Party On The Industrial Training Of Overseas Nationals 20 2. Continuing the Newsletter......24 The Athlone Organization's View of the Program......29 Earl of Athlone's Forward, from Newsletter #1: 29 Conclusion 41

One of the Finest Examples of UK-Canada Cooperation in Engineering Education



By R L (Bob) Hemmings Athlone Fellow IC 1962

BSc. Chemical Engineering, University of Alberta, 1962

PhD, DIC, Chemical Engineering, Imperial College, 1965



Forward

I began this work as I noticed that I was growing older, and had not yet told my children, let alone my grandchildren, why, where and how I had earned my advanced degree. When I recently mentioned the **Athlone Fellowship Program**, even to educators, I was greeted by a blank look, as if I was speaking in a foreign language. So I decided to undertake a search for some documentation of the **Program**. That was when I discovered that there was little documentation easily available. So, I tried to use whatever resources I could find to compile this **Short History of the Athlone Fellowship**.

And, what was the Athlone Fellowship Program? It was a unique honour and opportunity for recognition of significant Engineering talent, designed for Canadian graduate engineers to take either 1 or 2 years to gain British engineering experience, either academic or industrial. It was thought that, when the Athlone Fellows returned to Canada, such experience would eventually lead to sales of British engineering products and services and thus increase British trade with Canada, to the benefit of both countries. The program began in 1951 and continued for 20 years, to the direct benefit of 810 Canadian engineering graduates.

By chance, one of my close friends is also an Imperial College (IC) Athlone Fellow, Ron Weir (UNB Athlone at IC 1963), passed my name on to Gary Elfstrom (UBC Athlone at IC 1968) who was organizing the **2017 Summer** "Athlones at IC" Conference. After sharing much information, he also passed on my need for Athlone information to those Athlones that he knew. Many other Athlone Fellows, and some of their friends, passed on information to me, including: Dwight Aplevich, Jack Banks, Tom Carter, Peter Castle, Murray Clamen, George Davies, Neville Davis, Bill DeCoursey, Robert Frederking, Ken Johns, Neil MacKenzie, Ken Montgomery, Fred Parkinson, Arthur Plumpton, Ian

Rowe, John Sankey, Brian Staples, David Stone, Eric Thomson, and more as the Project expanded.

And my wife Micheline gave me her encouragement and enthusiasm when I got stuck.

Armed with this support, I began serious organization of the information that has been shared with me. This document is one of the results.

Other documents that I have developed (or in some cases, still am developing) include:

- *Letters by Athlone Fellows* containing:
 - o 13 letters dated in 2018 or later, as a result of my request;
 - o an article entitled "*Jolly Good Fellows*", featuring comments by 7 Athlone Fellows in the Imperial College Newsletter of Spring 2018, pages 20-23, compiled by William Ham Bevin;
 - 2 letters from the Imperial College Newsletter of Winter 2016-2017, page 3; and
 - All the letters that were published in the Athlone Fellowship Newsletters, #1 to #16 (1956-1972).
- *My own Athlone Story*, hopefully to be finished this year (2018)
- Selected Extracts from the Athlone Fellowship Newsletters, from #1 to #16.

And, as a result of perusing all the available information, I have come to more fully appreciate, and to have pride, too, in being a part of the **Athlone Fellowship Program**.

Introduction

The Athlone Fellowship Program came into being in 1951, and continued for 20 years until it was terminated in 1970. It was initially identified as the *Athlone Fellowship Scheme*, but I find that the word "scheme" has some negative connotations, so I use the word *Program* instead. And I also use, inconsistently, the North American spelling where I am not repeating input from UK sources.

During those 20 years the total number of Fellowships awarded was 810 and the following table shows the relative distribution of Fellowships since 1951:

Year	2 yrs industry or industrial consultants	2 yrs university college or research lab	Mixed Course	1 yr only *=university **=industry	Total
1951	8	21	8	1*	38
1952	4	17	13	1*	35
1953	16	10	10	1*	37
1954	10	9	15	2(1*,1**)	36
1955	7	11	17	2 (1*,1**)	37
1956	1	19	16	2*	38
1957	2	27	7	-	36
1958	-	20	17	1**	38
1959	-	27	14	-	41
1960	1	27	12	-	40
1961	1	29	10	-	40
1962	-	21	18	1*	40
1963	2	25	14	1*	42
1964	1	23	13	5*	42
1965	-	22	13	9 (8*,1**)	44
1966	1	25	12	6*	44
1967	-	26	10	9 (8*, 1**)	45
1968	-	26	7	10 (9*, 1**)	43
1969	1	24	10	12 (11*, 1**)	47
1970	1	19	9	18 (17*, 1**)	47
Totals	56	428	245	81	810

The Origin of the Athlone Fellowships Program

It has been stated in the brief note on Governors General of Canada, in the online Canadian Encyclopedia, that "The Earl of Athlone created the Athlone-Vanier Engineering Fellowship at the Engineering Institute of Canada, recognizing academic excellence, leadership and management potential." But more evidence of that activity is difficult to find, as is how it became the "Athlone-Vanier" rather than the "Athlone" Fellowship.

I have also discovered the following information on the origin of the Athlone Fellowships, extracted from Grace's Guide to British Industrial History, which is an brief Obituary of Lord Athlone. [Grace's Guide is the leading source of historical information on industry and manufacturing in Britain. This web publication contains 127,453 pages of information and 201,038 images on early companies, their products and the people who designed and built them.]

The Earl of Athlone Obituary

Major-General Alexander Augustus Frederick William Alfred George Cambridge (1874–1957)–1957

The Right Hon. the Earl of Athlone, K.G., P.C., G.C.B., G.M.M.G., G.C.V.O., D.S.O., F.R.S., who died in London on 16th January 1957, was elected an Honorary Member of the Institution in 1936.

The Earl was born at Kensington Palace on 14th April 1874, the third son of the late Duke of Teck and the late Princess Mary Adelaide.

He had been Personal A.D.C. to H.M. the Queen since 1953, and before that to the late King George VI. He was an Honorary Major-General, retired, and a late Captain Seventh Hussars and Royal Horse Guards, and Second Life Guards. He served in Matabeleland 1896, in South Africa 1899–1900, and in the 1914–18 war. From 1923 to 1931 he was Governor-General of the Union of South Africa.

During the 1939–45 war the Earl of Athlone became Governor-General of the Dominion of Canada. During his term of office from 1940 to 1946 he and the Countess were extremely popular in Canada. When the scheme for giving Canadian engineering graduates post-graduate training in Britain (which was later to become known as the **Athlone Fellowship Scheme**) was inaugurated, just after the conclusion of the war, it was decided in view of his strong link with Canada to invite the Earl of Athlone to become patron of the Scheme. He agreed most readily to have his name associated with it.

The Earl showed the greatest interest in the Athlone Fellowship Scheme from its inception and he attended some of the receptions given for the Fellows.

During my own Athlone Fellowship interview, way back in 1962, I was told, if my memory is still working OK, that the main purpose of the Athlone Fellowship Program was to expose promising engineers from Canada to the British engineering and manufacturing industries. The idea was that, through this exposure, the Canadian engineers would specify British engineering products and thus expand British engineering industrial products and, further, increase British exports. This memory fragment is supported by the preamble of the British Board of Trade booklet on the Athlone Fellowship, detailed later in this work, in the Section entitled "The Athlone Program Description".

There was an article on the formation of the **Athlone Fellowship Program** presented in 1953 by Dr. W. Abbott, C.M.G., O.B.E., Ph.D., B.Sc.(Eng.), M.I.Mech.E., at a joint meeting of The Institution of Civil Engineers, The Institution of Mechanical Engineers and The Institution of Electrical Engineers on the 10th April, 1953.

The paper was published in the Proceedings I.E.E. (1953, 100, Part I, p. 221); and both the paper and the discussion, in the Proceedings of Mech.E. (A, 1953, 167, No. 3). It is reported that in introducing the author, the President of the meeting said that it was difficult to determine exactly where the Athlone Fellowship Scheme had originated, but it had been very much associated with governmental visits between Canada and the United Kingdom, perhaps more concerned with economic affairs originally and spreading later into the educational field. As a result the Government had commissioned Sir Arthur Fleming, a Past-President of The Institution, and Dr. Abbott to go to Canada and report upon how arrangements could be made for the post-graduate training of Canadians in the UK.

The next step had been that a number of Canadian professors had visited UK universities and examined their training schemes, and had then reported favourably on the planned Athlone scheme. Thus it came about that in 1951 the Athlone Fellowship Scheme had been established, and in that year 38 Canadian graduates had come to the UK for a two-year course of post-graduate training. The same number had been sent over in 1952 and this year (1953), so that there were always close to 76 Fellows in the UK at a time.

The scheme could not have been in better hands than in those of Dr. Abbott, who had played such an important part in its establishment. Dr. Abbott had graduated at London University, and had secured his practical training at H.M. Dockyard, Portsmouth; after that he had been in educational circles at the Admiralty; he had been at the Northampton Polytechnic as Head of the Civil and

Mechanical Engineering Department; and he was now in an important position in the Ministry of Education.

The paper was entitled "The Athlone Fellowship Scheme for the Practical Training in Industry of Canadian Engineering Graduates in Great Britain", and was summarized as presented below, with a few minor rewording to make it more easily understood from the Canadian perspective, and from a time some 65 years since the inception of the Athlone Fellowship:

Briefly stated, the scheme is designed to bring to Great Britain every year 38 Canadian engineering graduates for post-graduate study extending over two years. This is the third year of operation of the scheme, two groups of Athlone Fellows being now in Great Britain. The scheme carries the name of a former Governor-General of Canada, the Earl of Athlone. It is well known that, although considerable numbers of engineering graduates have come for further training to the United Kingdom from Australia, New Zealand and South Africa, relatively few have come from Canada. Canadian graduates have near at hand the educational and training resources of the United States, and it has been suggested that Canadian engineers are becoming increasingly familiar with the products and resources of American organizations, and less knowledgeable of those of corresponding firms in the United Kingdom. The matter was carefully considered by the Board of Trade and the Commonwealth Relations Office, and as a result Sir Arthur Fleming and Dr. Abbott visited Canada in the spring of 1949. An embryo scholarship scheme was discussed with Ministers, Government officers, leaders in industry and commerce, professional engineers, university representatives and officials of trade organizations.

Following a visit of Canadian professors to this country the Athlone Fellowship scheme was announced concurrently in Canada and the United Kingdom. It was decided that there should be two classes of award:

Group A, for those about to graduate, the awards being allocated on a quota basis, the distribution being based primarily on the relative numbers graduating annually in the various universities, other factors also being given some weight;

Group B, for those who had already graduated and were at work, the awards being made on a national basis.

The Fellowships cover: (a) the total cost of travel, (b) a subsistence allowance of £6 10s. a week net (the initial amount, which had been

increased several times since the paper was presented), (c) the cost of tuition at a university, (d) an allowance towards textbooks and (e) a travel grant of £25 per annum for journeys within the United Kingdom. Industrial employers are asked to pay into a central fund the wages they would normally pay to a trainee of the college apprentice type. The net cost of the scheme is carried by the British Government.

Many factors had a bearing on the scheme, one being that only a minority of candidates have wished to enter industry, the majority preferring to continue their studies in a university with a view to securing a higher degree. This is because North America is "higher-degree conscious" to a much greater extent than is Great Britain, and the scholarship holder in Canada is tempted to use his award for the purpose of obtaining a qualification with a definite market value.

The scheme fits most suitably the requirements of the graduate in mechanical, electrical or chemical engineering; it is necessary to ensure the utmost flexibility in the administration of the scheme and to avoid over-emphasizing the value of practical work in those engineering spheres, such as forestry engineering and irrigation, which are not practiced to any extent in this country.

Probably the most important single factor operating against the success of the scheme is the intense demand for graduates from all branches of the engineering industry, not only in Canada but also in the United States. It is probable that the great bulk of the graduates with a practical bent do not apply for Fellowships but seize the opportunities now presented by the buoyant industrial conditions in Canada; and that those who do apply include many whose aim is research, for which a higher degree is a necessity.

In reply to the discussion which followed the presentation of the paper, Dr. Abbott said that he wished to make it clear that those who selected the Athlone Fellows were looking for the complete man, and not necessarily the best graduate on his academic record. They stated that they "did not want to miss any Churchills".

What was it that the young engineer required after getting his degree? What material would he most commonly use? He suggested human material; and, therefore, what the young engineer wanted more than anything else was industrial experience and contact with human beings. Although they had accepted most willingly—and would certainly continue to do so—men who wanted to pursue research, they nevertheless also wanted to take the practically-

minded engineer who required works training, contact with human beings, and the production side of engineering.

The question had been asked whether they were enlisting the aid of Canadian industry. The answer was very definitely, Yes. Every year Mr. James Duncan, who was the President of Massey-Harris, wrote to all the leading Canadian companies asking for their co-operation; he did this at the suggestion of the High Commissioner for the United Kingdom in Ottawa, and his letters had a profound effect. Many firms were co-operating by releasing some of their staff members to come to this country as Group B candidates for post-graduate training. But the difficulty had arisen that many of these companies would agree only with great reluctance to lend a man for two years. He remembered discussing this matter with Mr. Ingledow, of B.C. Electric, who had said, "I want some of my young men to come to the United Kingdom some time with firm X and firm Y because experience with them would be very much to our advantage. We are already buying a good deal of material from these companies and would wish to buy more; but we cannot spare any of our men for more than one year."

With regard to competition for places he could give the figures, but they would be very misleading, because the universities screened the candidates whom the selectors saw. In fact, in one university with a very masterful president, the selectors interviewed only a small number of the applicants; the remainder had been told that they had no chance. But of those who were seen, there were, on the average, two candidates for every Fellowship in Canada as a whole, and that was quite healthy. There had been a definite trend on the part of candidates this year to opt for industrial training. It had been asked how this was to be accounted for—had he, Dr. Abbott, anything to do with it? Well, he had had a little to do with it, but not a great deal. He and his colleagues discussed with the Athlone Fellow applicants on many occasions what they might do; he and his colleagues gave their point of view, and the applicants gave theirs, and they thought about it. This was done before the interview. The applicants were met informally and there were long discussions, and then when the applicants appeared before the selection boards, they had made up their minds.

Two young men had come before him and his colleagues, one aged 21 and the other 22. The first young man had been first out of 147 and the second had been fourth. Both were six-footers, and he had never seen two young men who had made such an impression on him. Both had been paying their way through the university, doing all kinds of work to get the money, and both had wanted to go to Rolls-Royce. They had said that they did not want higher degrees but wanted practical training. So he had cabled the company and they were both going there.

He and his colleagues had had no share in influencing those two young men in their decisions.

In another case, a young man in Quebec who had failed to get a Fellowship had said, "I am terribly disappointed that I have not got a Fellowship, but I intend to come to Great Britain under my own steam; I have saved enough money, and I should like to come and get practical experience in the United Kingdom. If I come, will you place me and help me as if I were an Athlone Fellow?" He had been told that of course they would do so; but it had so happened that there was a deficiency in another university, and this excellent young man had got a Fellowship after all. But this case gave some indication of the keenness among young Canadians to take advantage of the scheme.

The question had been asked whether Canadian industry was consulted about the scheme, and he would reply emphatically, "Yes". Most of the leading figures in the Canadian engineering world had been consulted personally or informally by himself or by his colleagues, and he would like to mention the reactions of one outstanding personality in Canadian engineering life, Mr. Heartz. There had been no stronger supporter than Mr. Heartz of the Athlone Fellowship Scheme, and Mr. Heartz had expressed the following point of view, which was worth recording: he had recently visited factories in Switzerland, Sweden and this country and he had returned to Canada a little disturbed; he had said, "It seems to me that the equipment in the works of some British companies is out of date compared with what I have seen in Switzerland and Sweden and, indeed, in my own company. My own factories are more modern and better equipped than those of yours that I have seen. I am a little worried as to whether I should be doing the right thing in persuading some of my young engineers to go to the United Kingdom for training on your less up-to-date equipment." Mr. Heartz and the author had discussed this situation very thoroughly. Here had been a perfectly honest man, friendly to the scheme, disturbed in his mind as to whether he could continue to support it with a clear conscience; and it was not easy to answer the question. In this country, the UK, we were not able to replace equipment as rapidly and effectively as we would wish because of the economic situation. That was well appreciated in Canada. The point could be made, of course, that one really did not want the most up-to-date and the speediest equipment for practical training; the thing that mattered was the organization of the training scheme, and he thought he had been able to satisfy Mr. Heartz on that score. But there had been letters from Athlone Fellows in this country criticizing the equipment on which they had been put to work, some machine tools being 40 years old.

At the Ministry they had a file of letters which were very encouraging, although perhaps not nearly as outspoken as they would like. He would end by reading an extract from a letter: "Messrs. X, as you know, arranged my two-year course, and due to its flexibility and my freedom to go wherever I desired in the works, this leaves me with nothing to criticize adversely. Indeed, they may be spoiling me. Certainly everything possible is being done for me, and if I do not take advantage of these privileges, then I have only myself to blame."

More on the Beginning of the Athlone Fellowship Program

The Athlone Newsletter #12, published in January, 1968, contains a further insight into the formation of the Athlone Fellowship Program, as well as an indication of its coming termination. The article therein is entitled "A Short History", and I quote it below in its entirety:

A Short History as told by the British Board of Trade

The Athlone Fellowships scheme resulted from a post-war review of the economic links between Canada and Britain. The idea of offering a Fellowship for technical training in Britain to young Canadian engineers was first suggested by Mr. Harold Wilson, then President of the Board of Trade, when he visited Canada in 1949. In order to examine this, a mission led by the prominent industrialist the late Sir Arthur Fleming, C.B.E., visited Canada early in 1950. The mission discussed with representatives of universities, government departments, and professional institutions throughout Canada, their reactions to the proposal for a Fellowship which would enable Canadian graduate engineers to obtain further training and experience in Britain. In the interests of the development of trade between the two countries. As a result of the findings of this mission (which was quickly followed by a return visit of Canadian university professors to Britain) the Athlone Fellowships scheme was announced in Parliament by Mr. Wilson later the same year. It was named after the Earl of Athlone, who was Governor-General of Canada from 1940–1946. The first group of Fellows arrived in the U.K. In September 1951.

The late Sir Arthur Fleming, who played a key part in the setting up of the scheme, became Chairman at the Committee which was formed to manage its affairs. He retained this position for six years and died in 1960, two years after his retirement. Sir Arthur was succeeded as Chairman of the Managing Committee by Sir Claude Gibb (1958–1959) who collapsed and died in January 1959 whilst traveling from the United States to Canada. Sir Julian Pode, who succeeded Sir Claude, was in post as Chairman from 1959 to 1966 when he retired. The present Chairman, Sir Maurice Fiennes was appointed in 1966.

When the scheme started there were eleven Canadian universities participating, but this number has now doubled. The minimum number or Fellowships awarded annually is

now forty-one, but the actual number can exceed this if one-year Fellowships are allocated. Originally all awards were for two years, but since 1962 a limited number of one-year awards have been offered to "B" Fellows (i.e. engineers who have spent some time in industry). This came about because some firms in Canada were reluctant to let their employees go for two years—even on an Athlone Fellowship—but they were prepared to approve a one-year absence.

Selection of the candidates starts with interviews by local Boards during the last three months of each year, at each of the participating Canadian universities. These Interview Boards contain representatives or local academic and industrial institutions and of the British Government office, and are attended by the Athlone Adviser from London. The present Adviser is Mr. Fred. E. A. Manning, C.B.E., who has been in post since 1961. He was preceded by Dr. A. C. Monkhouse (1958–1961), Dr. H. H. Burness (1955–1958) and Dr. W. Abbott (1951–1955). The Boards interview only those candidates who have already been pre-selected by the universities as being eligible and well in the running for a place. Of those seen by the Boards about a third are given awards. When the Scheme started, the awards were made on a Quota basis for each university, but in recent years, with the increase in the number of participating universities, Fellowships have been allocated on a country-wide basis. The final assessment and selection of candidates is made by the Adviser after his return to London, and he then prepares two lists of candidates, awards and reserves. These lists are examined and finally approved in the Board of Trade, and the awards are announced early in the New Year.

One of the main advantages offered by the Athlone Fellowships over other awards is its flexibility in allowing Fellows a freedom of choice between university and industry or a bit of both. The founders of the scheme had hoped that many Fellows would opt for industrial experience but university programmes have been more popular than industrial from the start. Several Fellows who choose two-year research programmes at university decide to carryon after the fellowships expire in order to work for a Ph.D. Men doing this in recent years number between twelve and fifteen each year. But there is no question of extending the fellowships for a third year to help finance these studies and Fellows are warned well in advance that they must find other means of support. In the early days of the scheme, the National Research Council of Canada was liberal in its scholarship awards which enabled Athlones to finish a third year at university, but latterly the policy of the Council has become more rigid. In 1967 out of fifteen Athlone applicants, only eight were successful in securing help from this source.

One of the conditions of the award is that Fellows must undertake to return to Canada to work: In engineering after the Fellowship expires, or after any extension granted for further study. Most Fellows are scrupulous in honoring this condition and there have

been only a few exceptions but these could be an embarrassment to the Managing Committee in the event of the operation of the scheme being challenged.

The Athlone Program Description

In 1959, the British Board of Trade published a booklet entitled:

"The Athlone Fellowships—Experience in Britain for Canadian Engineers" which provided additional information on the Athlone Fellowship Program, with the object "to explain what the Athlone Fellowships are; what they offer to the young Canadian engineer; and how Fellows are selected." This booklet was made available to most Fellows and describes with somewhat different words than was presented in the 1953 paper by Dr. Abbott, as quoted above. It has the following preamble:

The rapid expansion of Canada's industry is calling for large numbers of men with high scientific, technical and managerial ability. To such men the United Kingdom's industrial plants, research organizations, colleges and universities have a great deal to offer. Only, however, if they are seen at first hand is it possible to appreciate fully the scope and quality of engineering research, development, design and production practices in the United Kingdom.

Since 1951, Her Majesty's Government in the United Kingdom has, therefore, been providing Athlone Fellowships for young Canadian engineers. The Fellowships are of two years' duration and are granted on the understanding that their holders afterwards return to Canada to follow their careers. The number available each year is now 41. They enable selected engineering graduates to carry their education and training further in the United Kingdom under arrangements made to meet their individual needs. At the same time they enable their holders to meet people in the United Kingdom and become acquainted with their way of life, thus fostering understanding between the two countries and building the basis upon which trade across the Atlantic can be increased in both directions.

The Athlone Program Termination

Correspondence from the Board of Trade

Thanks to Bob Rorden, I now have 2 letters from T. W. Turner, Secretary to the Athlone Fellowships Managing Committee, addressed to former Athlone Fellows in Canada.

- 1. October 1968 Indicating that things have changed since 1951, and requesting suggestions for re-shaping the Athlone scheme.
- 2. October 1969 Noting that approximately 500 letters were sent out in 1968, and nearly 200 replies were received. Advising us that the scheme was being terminated and the last group of Fellows would be those coming to Britain in September 1970, while any Fellowships then current would be allowed to run their normal tenure.

I have included photocopies of these 2 letters on the following pages:



Our reference: GD.4553 G

Your reference:

The Athlone Fellowships, BOARD OF TRADE

1, Victoria Street, London, S.W.1.

Telephone: 01-222 7877

ext. 2622

BY AIR MAIL

October, 1968.

Dear Mr. Roden,

As you know, the Athlone Fellowships scheme was introduced in 1951 to enable Canadian graduate engineers to come to Britain to gain first hand experience of British techniques. A major factor was, and still is, to promote understanding between our two countries which could lead to increased trade.

Since 1951, however, things have changed. Canada herself has advanced so much in industrial techniques, and in the academic world too, that one wonders to what extent the United Kingdom can now offer young Canadian engineering graduates anything very much in excess of what they can obtain at home. We think that the time has come to take a critical look at the Athlone scheme to see whether we should modify it so that it fits better into the conditions of today.

One of the proposals we are considering is that some awards should be offered to older men over 30 years of age, including past Athlone Fellows, and others to enable them to come here for say three to six months for a refresher course to bring them up to date with British practice. This might take the form of an attachment to a British firm (normally of the Fellow's own choosing), or attendance at an advanced course either in some specialised aspect of engineering or on business or management studies. It would be helpful for us to know - without any commitment, of course - if, for example, you would take advantage of such an offer and, if so, your motivation and which type of experience you would seek. Assuming that we were to finance your journey to Britain and pay any fees which might be necessary, how much do you think you would need, per month, for maintenance?

Quite apart from this the Managing Committee would be grateful for any constructive suggestions for re-shaping the Athlone scheme, remembering that its primary object is geared to the promotion of trade.

I am sending this letter to all past Athlone Fellows in Canada whose addresses we have, and my hope is to have replies by the end of November.

Yours sincerely,

(T. W. Turner)

Secretary to the Athlone Committee

Mr. R. B. Roden, 250, Westcourt Place, Waterloo, Ontario CANADA



Our reference: XP. 58/5/69 Your reference:

BOARD OF TRADE

"Athlone Fellowships"

1, Victoria Street, London, S.W.1.

Telephone:

ext

29 OCT 1969

Dear Athlone Fellow,

In October last year I wrote to former Athlone Fellows in Canada asking for views on possible changes in the Athlone Fellowships scheme. Approximately 500 letters were sent and nearly 200 replies were received. You were one of those who replied, and I should like to take this opportunity to thank you for doing so.

A great deal of thought was given by the respondents to the present organisation of the scheme and to the suggestion that a refresher course for men over 30 should perhaps be provided. The views expressed were diverse and it is not possible to do justice to them all in this letter.

As regards the usefulness of the scheme as a whole, although it was admitted that Canada has made great strides technologically since the Athlone scheme started in 1951, and that experience in the U.S.A. is often more relevant to the Canadian engineer, there was a fair measure of opinion that Britain can offer Canadian engineers useful experience in the industrial field.

Considerable stress was put on the more intangible benefits of the Athlone scheme namely, the opportunity to work in a new environment and visit Europe and to profit from contact with a different outlook and so on. It was pointed out that no other similar scheme offers the Canadian engineer such a choice of academic and industrial experience and such a varied range of programmes.

From Britain's point of view the replies suggested that the gain from the scheme in trade terms was not calculable although a few of the Fellows indicated that their stay in Britain influenced them in buying British. Goodwill towards Britain, resulting from the scheme, may lead to increased trade, but in some cases an unfavourable impression of British industry has been gained. There were a number of suggestions for helping the scheme fulfil its original purpose of promoting trade, including the need to put more stress on industrial experience and concentrating efforts on introducing Fellows while in Britain to industry whose products have a potential market in Canada.

As regards the proposal that awards should be offered to men over 30, it would seem that there is a demand for refresher courses for older men. More than half of the replies said that they were interested in returning to Britain for this purpose. But there were obstacles such as the attitude of the Canadian employer. There was opposition to abolishing the existing scheme and replacing it by the proposed new scheme for older Fellows. The majority, however, accepted the need for a change, although some seem to assume that any proposed new scheme would be additional to the present one and not in place of it.

A good deal of useful information on the difficulties which might arise such as the cost of a new scheme, the rates of maintenance allowance and the tenure of any new awards, was given by Fellows. A maintenance allowance of £175 a month emerged as an average suggestion for a three to six month stay. Many of the replies pointed out that Canadian firms might contribute towards the cost

in some cases, and other opinions suggested that universities might give their staff sabbatical leave. Some Fellows thought they might be prepared to come to Britain without their families for a period of less than 3 months, but they would not want to be separated for longer periods.

So much for a brief summary of the replies from Canada. In the meantime, however, a Working Party in London has been looking into the arrangements in the United Kingdom for the industrial training of overseas people and this review has, of course, included the Athlone Fellowships scheme. The Working Party, which consisted of representatives from Government Departments and from industry, took into account the views summarised above. Its report has now been published and its recommendations accepted by H.M. Government. One of the main recommendations was that the Athlone scheme, which has worked very well since it started in 1951, should be ended and the money currently spent on it diverted to other recommendations. The decision to terminate is in no way a reflection on the scheme or the way it was operated. But changing circumstances have dictated a shift in emphasis in the way that money is to be spent on training. There will be a final group of Fellows and these will come to Britain in September 1970 for periods of one or two years. Fellowships now current will, of course, be allowed to run their normal tenure.

The Working Party found that some of the circumstances in which the Athlone scheme were set up eighteen years ago have changed; training facilites in Canada are now much more extensive than they were and the Working Party considered that it was no longer right to devote such a high proportion of the resources available for the industrial training of overseas people to a single country. As the Athlone scheme is phased out, i.e. there will be no Athlone awards after 1970, the aim is to include Canada in an expanded Confederation of British Industry Scholarship Scheme under which Canada will receive awards on the same basis as other Commonwealth developed countries. Details are still to be worked out.

I am sorry to have to write and tell you this sad news. It is some consolation to know, perhaps, that the Athlone scheme has been recognised as successful for the decision to end it in no way carried any implication that it has failed in its original purpose.

Yours sincerely,

T. W. Turner

Secretary to the Athlone Fellowships Managing Committee.

Report Of The Working Party On The Industrial Training Of Overseas Nationals

The **14th Newsletter** included a short write-up on the report that recommended the termination of the Athlone Fellowship Program, which is presented below:

The Working Party was set up in July 1968 to review present arrangements in the United Kingdom for the industrial training of overseas nationals, particularly from the point of view of what contribution these trainees can be expected to make to furthering Britain's export trade. Also considered was the work being done in this field by the United Kingdom's trading competitors and whether any changes might be made in existing British arrangements in the interests of export promotion. It is not intended to go into the details of the Working Party report the recommendations which have been accepted by the British Government. A large cross-section of British industry was approached for comments and suggestions on the current training programmes and these were duly examined by the Working Party. The Athlone Fellowships scheme was included. [The Report was published on 26th September, 1969; copies may be purchased from Her Majesty's Stationery Office (10 shillings).]

The main conclusion of the Working Party was that there should be a shift within the ceiling of present Government expenditure from the current concentration on Canada to more being done for trainees from the rest or the Commonwealth, Europe and the developing countries. They recommend that the Athlone Fellowships scheme should end. Current awards will run their normal course.

The Working Party found that the Athlone scheme had worked very well and had made a valuable contribution over the last eighteen years. However, since the inception of the scheme in 1951, Canada has rapidly developed in all spheres and can now offer extensive training facilities herself. It is also a fact that there is now a much wider knowledge in Canada of what the United Kingdom has to offer in the way or engineering exports.

Of the major block of Government expenditure on training programmes—the £140,000 per annum spent by the Board of Trade—over two thirds goes on the Athlone scheme and the Working Party considered that it was no longer right to devote such a high proportion of the resources available to a single country.

The recommendations of the working party were that:

- (a) a British Office for Trainee Exchange be set up to encourage the exchange of trainees not only between Britain and the rest of Europe but also with other developed countries;
- (b) increased Government support should be given to the Overseas Scholarships Scheme of the Confederation of British Industry. This Scheme, instituted in 1950, brings to Britain about 100 scholars a year from the Commonwealth and developing countries for training in a wide variety of engineering industries;
- (c) the Institute of Directors, whose scheme brings overseas nationals to Britain for intensive tours of industry, should be helped to expand their scheme;
- (d) the Athlone scheme should be ended (and the money currently spent on the scheme diverted to the other recommendations) [author's emphasis]. The usual number of Athlone Fellowships will be offered in 1970, there after no further awards will be made. The Fellows appointed in 1970 will be the last. But Canada will be included in the expanded CBI Overseas Scholarships Scheme, on the same basis as other Commonwealth developed countries;
- (e) finally, the Report suggests that training by private industry might be helped if more overseas nationals were made eligible for training grants under the Industrial Training Act, 1964.

The **15th Newsletter** identified and described the termination of the Athlone program, and also discussed what might be a follow-on program. In that newsletter, there were **two** interesting discussions:

- (1) Can a Substitute for Athlone be Found; and
- (2) Continuing the Newsletters.

1. Can a Substitute for Athlone be Found?

by the Executive Committee of the Ontario Athlone Association

Since 1951, Her Majesty's Government in the United Kingdom, acting through the Board of Trade—now the Department of Trade & Industry—has sponsored the Athlone Fellowships Scheme whereby 40 or so young Canadian engineering graduates annually took up postgraduate training in the U.K. The individual programmes normally included two years at a university, two years in industry or a year in each. The scheme has served many purposes by giving Canadian engineers the advantage of obtaining some of their training in a technically advanced and industrially mature country, while at the same time giving them the opportunity to explore the culture and way of life in the British setting. Important also was the economic purpose of fostering trade and cultural links between the two countries.

For a variety of reasons, Britain has now decided to end the scheme when the 1970 Fellows return to Canada after completing their awards in 1972. It is doubtful if there are any former Athlone Fellows for whom this is not saddening news, as most of them have, for a variety of reasons, attached great value to their years lived in the U.K. Mainly because of this they would like to see some form of the scheme continue for the benefit of more than one generation of Canadians.

The members of the Executive Committee of the Athlone Fellows Association in Ontario have considered the feasibility of creating Canadian-sponsored Fellowships intended for engineering and related studies in the United Kingdom and perhaps Europe and even Asia. It is intended that these Fellowships will resemble in many ways the Athlone Fellowships. The continuance of a Fellowship programme would be based upon the premise that study outside the North American sphere of influence would be both beneficial to the individual and to society at large—especially if there would be a sizeable number of Fellows. It is also felt that a knowledge of foreign countries derived from living in these countries would be beneficial in expanding Canadian markets abroad' and in promoting goodwill and understanding.

At the present time there is a severe shortage of bodies sponsoring postgraduate work outside North America. Money is extremely hard to come by, but if

programmes are not continued now, there could be severe long-term consequences. With the necessary funds for continuing an Athlone type programme, there is the problem of administering the scheme. A considerable portion of the funds collected would have to go into the expenses for the selection of candidates, the salaries of full and part-time administrators and secretaries, consultants' fees and expenses for arranging the Fellows' programmes abroad. In view of the nature of the activity, it seems logical that the Fellowships would be administered most efficiently by existing organisations which automatically have access to many of these services. The most likely bodies to be approached are the engineering societies in Canada, such as the provincial licensing bodies and national technical societies. The Fellowships Managing Committee could be composed of representatives of these societies as well as former Athlone Fellows. A number of methods have been suggested for financing the proposed scheme. With regard to administering to the Fellows' needs in the United Kingdom or other European countries, one cannot hope to duplicate the "local" guidance which has been provided in the past by the Board of Trade. Also, for the initial placement of Fellows, one would expect to rely heavily on the candidates' own initiative and on advice they can get via the contacts of their professors, engineering acquaintances and former Athlone Fellows. It would, however, be worthwhile approaching the Department of Trade & Industry for their advice as to what arrangements might be made about the placement of Fellows. The European Organization for Economic Cooperation, or other bodies may prove willing to assist in the placement of Fellows in Continental countries. The methods identified included:

- (a) total financing by the Fellows themselves—past and present Athlone and future Fellows
- (b) petition the Canadian Government to continue the program, supported by the British Government for 20 years, to the great benefit of Canada
- (c) ask a foundation established by private enterprise, such as the Rockefeller Foundations or the Ford Foundation, etc., for support
- (d) make the Canadian Fellowships into a project of the engineering societies previously intentioned.
- (e) a combination of (a) in conjunction with support from one or more of the other sources. A good system might be one in which the various possible sources mentioned would pledge amounts depending upon what the Athlone Fellows themselves would be willing to contribute.

It is estimated that \$200,000.00 per year would be required to operate this scheme on any reasonable basis. [This 1970 amount would be about \$1,300,000 in 2018.]

Loyal as "old" Athlone Fellows may be, it is not likely we can raise such a large amount each year from internal contributions. It is very evident that funds must be solicited from other sources.

We invite comments from all parties reading this discussion. We are interested in hearing from the Department of Trade & Industry, the E.I.C., the A.P.E.O., etc., from possible donors and especially from Athlone Fellows.

The immediate decisions to be made are:

- (i) to abandon forever the idea of continuing some form of the Athlone Fellowships,
- (ii) to postpone the idea of setting up the continuing programme until a more hospitable economic climate prevails, or
- (iii) persevere immediately in an attempt to continue some form of the Athlone Fellowships Scheme.

We await your comments.

Editor's note: Correspondence on this article should be addressed direct to the Chairman of the Executive Committee of the Ontario Athlone Fellows Association.

[To the extent of my research, no formal comments were received and reviewed.]

2. Continuing the Newsletter

by Dr. J. D. Brown (1958 N.S.T.C.) and F. E. F. Dunford (1967 Queen's)

One of the casualties of the decision to terminate the Athlone Fellowships Scheme is the Newsletter, with this being the penultimate issue. How many of us have seen that blue cover appear in the mail and felt a warm surge of recollection and, if only for a short time, a feeling of belonging to something quite special. The Newsletter may be a tenuous link but it is nevertheless, a link with our "Fellows". How quickly will we begin to lose track of who is where and doing what when the present Newsletter stops.

With these thoughts in mind, we have considered the feasibility of continuing the Newsletter in some form, but there are also certain practical reasons for continuation. There is a strong feeling among many Athlones that the scheme should be continued. Any replacement scheme which might be devised would require full support from ourselves. The necessity and desirability of maintaining a Newsletter as a means of keeping in contact through the period of establishing a new Fellowship Scheme are self-evident. We Athlones at Nova Scotia Technical College are prepared to undertake the job of producing a Newsletter. We solicit

your support. Preliminary estimates indicate that a Newsletter of some 70 pages, sufficiently big to contain address lists and contributed articles, could be printed and distributed for approximately \$1.25 per copy.

For a first issue subscription, would you be willing to pay \$2.00 with a reduction in succeeding years? If so, stand up and be counted. If sufficient support is indicated by the return of the form which is the bottom half of the tear-off page, we will proceed in our intention. If insufficient support is indicated we will, with regret, forget the whole idea. So too, in that case, may the people who are working to keep the Athlone Fellowships alive forget the whole idea.

[Again, I found no further response to these suggestions.]

Participation in the Program across Canadian Institutions, By Province and Institution

Details of all the 810 Athlone Fellows in the 161 pages of the **Athlone Fellowship**Newsletter #16. These are summarized in the following table:

University	No. of Fellows	Year of first Fellowship award
Alberta, UofA	55	1951
British Columbia, UBC	99	1951
Carleton	1	1961
Ecole Polytechnique	53	1951
Laval	41	1951
Manitoba	67	1951
McGill	78	1951
McMaster	17	1962
New Brunswick	37	1951
Nova Scotia Technical	49	1952
Ottawa	12	1959
Queens	63	1951
Royal Military College	19	1964
Saskatchewan	44	1951
Sherbrooke	6	1959
Sir George Williams	6	1968
Toronto	110	1951
Waterloo	24	1962
Western Ontario	17	1959
Windsor	7	1964

Note—there were 5 Fellows from miscellaneous institutions which completes the total of 810 Athlone Fellows.

The preceding Table shows the "top 20" Engineering Universities in Canada at the end of the Athlone program [1970]. The 5 "miscellaneous" institutions are listed below:

California Institute of	1	1955
Technology		
Georgia Institute of	1	1960
Technology	1	
Michigan College of	1	1963
Mining and Technology	1	
Provincial College of		1957
Technology and Art	1	
Calgary		
University College,	1	1957
London		

Program Evaluation

During the early operation of the Athlone Fellowship Program, there was no formal communication from the program organizers and administrators, and the Athlone Fellows. After five years, an annual newsletter was initiated, and was produced every year until the program was terminated in 1970. One of the best indicators of how the program was working was the *Forward* and the *Notes* of each of the Newsletters.

Although I have not been able to locate a formal evaluation of the **Program** in any of the documentation received, it seems obvious to me that this excellent program was really excellent for the Engineers that were honored to be selected. However, the impact of the program on the trade in British engineering goods and services seems to be lacking, as there appears not to be a method to be used to make this evaluation. And such a method could be quite complex, probably more than a simple comparison of increases in British trade with Canada as a function of time and number of Athlone Fellows, perhaps with a delay of 10 years after the Athlone Fellows date.

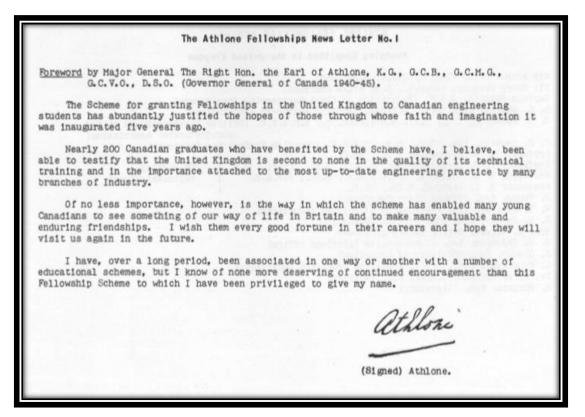
I can only conclude that the **Program**, once initiated, was part of a complex government funded program that was not too large to attract too much attention until, eventually, it was questioned by the Department of the Treasury. Once questioned, it could not be defended and was thus terminated.

For the Fellows, the **Program** was exceedingly successful—just review their letters in a separate Part of this document—letters included in the newsletters, as well as contemporary letters. In addition, there is a copy of an article from a recent edition of the Imperial College Magazine, on Page 34. The Fellowship brought new experiences to over 800 well qualified Canadian engineers, experiences that most would not have otherwise experienced. For many, like myself, allowed them the pleasure and privilege of visiting the heart of the British Commonwealth, as it was then, and earning an advanced degree from a prestigious British university, or acquiring unique engineering experience at a leading British engineering industry. In addition, all the Fellows had the opportunity to see and to live the British experience during those two redevelopment decades following the end of the Second World War.

The Athlone Organization's View of the Program

One of the most interesting extracts of the **Athlone Newsletters** is the Forward of the first Newsletter by the Earl of Athlone, which I quote below, followed by the farewell note, entitled "Retrospect" by the last Athlone Program Advisor, F. E. A. Manning.

Earl of Athlone's Forward, from Newsletter #1:



"I have, over a long period, been associated in one way or another with a number of educational schemes, but I know of none more deserving of continued encouragement than the Fellowship Scheme to which I have been privileged to give my name."

F. E. A. Manning's, "Retrospect", from Newsletter #16

Now that the Athlone Fellowships Scheme is within a year of its official end, I have indulged a long-felt urge to read every one of the 810 personal files of all the Athlone Fellows and to read again all the 15 Newsletters. What a book could be written based on gleanings from this field! But how difficult it is to write a short article that is not merely a list of names and a set of statistics!

The Newsletter itself was suggested by John Godfrey (1954, Manitoba) and No.1 issued in December 1956. Except for a change of format in January 1969, it has appeared in exactly the same form yearly until this, the last number. The first five numbers contained underlined appeals for contributions which did increase in number and interest from 1962, but the flow dried up before this Newsletter was prepared and so I have been coerced into filling some space. Had it been a practical possibility, I would rather have produced a collection of about 25 articles under some such title as "The Best of the Athlone Fellowships Newsletter". Apart from excellent articles on the differences between the Canadian and British way of life as seen by wives as well as husbands and differences in the methods of obtaining higher degrees, one would read of London, of West and Northern England, of Scotland and of Wales. There would be mention of brass-rubbing; Goonhilly satellite communication station; heather skiing; a holiday in the U.S.S.R.; returning home via an Imperial College expedition to Africa and South America; student "rags"; queuing for tickets for Covent Garden Opera House; tandem cycling; and thoughts on what the individual Fellow has gained apart from the technical aspects.

My "Collection" would have started with the complete Foreword by the Earl of Athlone to Newsletter No. 1, but here I quote only one paragraph:

"I have, over a long period, been associated in one way or another with a number of educational schemes, but I know of none more deserving of continued encouragement than the Fellowship Scheme to which I have been privileged to give my name."

Sad to relate, the Earl died during the following year, but Princess Alice, Countess of Athlone, continued to show interest in the scheme and graciously received the Fellows arriving in 1970 at a reception arranged by the Foreign and Commonwealth Office.

There have been four Chairmen of the Managing Committee, three Vice-Chairmen, five Secretaries (one of these for a few months only) and four Advisers. These men were all keenly interested in the scheme and gave generously of their time and energy, whether full-time civil servants or volunteers from outside. Two members of the Managing Committee have served on it from start to finish, namely Professors H. E. M. Barlow and E. G. Cullwick, and to them thanks for staunch support, informed comment and sound advice are rightly due. Professor Cullwick merits special mention for his efforts here and in Canada to stimulate the formation of a Canada-

based replacement scheme. The first Chairman, Sir Arthur Fleming, and the first Adviser, Dr. William Abbott, have passed away, but their splendid work in devising the scheme and guiding it through the early years was undoubtedly responsible for the high reputation it has achieved. Time has caused small changes to be made, particularly since 1959 when 5 Canadian Universities requested to be added to the original 11 participating, and we ended with 22. Nevertheless, the original form and policies are clearly recognisable at the end. Honours were conferred upon some serving civil servants for their work, viz. on Dr. W. Abbott, first Adviser, C.M.G.; on Dr. H. H. Burness, who worked with Dr. Abbott and became second Adviser, C.B.E.; and on T. W. Turner, a Secretary to the Managing Committee for six years, M.B.E.

It was interesting to note that comments on details of the scheme made by members of all intakes from 1951 to 1970 were very much alike; except in so far as it had been found possible to meet some requests. Similarly, the experiences in industry and university related at Conferences from 1958 to 1970 were very much the same. There were small changes in the needs of Fellows as conditions changed over the years. In earlier years, the young Canadians were usually single and prepared to spend two or three years in the United Kingdom and were intent on gaining industrial experience rather than further academic education. Latterly, about 50% of those arriving have been accompanied by their wives and many were not willing to accept the financial burden of remaining for more than, one year in the United Kingdom. A one-year Fellowship was introduced to avoid the unexpected premature return to Canada of an appreciable number of Fellows whose places could often not be filled. It also enabled us to give more than 41 Fellowships in each of the last eight years by setting the cost of one-year Fellowships against that of two-year Fellowships on a sliding scale. The table on an earlier page is interesting as illustrating change over 20 years, but it should be read with appreciation of the fact that the recently introduced one-year courses for "Master" degrees in this country include reports on projects and each project is usually an industrial one.

From the first, the Fellows selected were of a high standard which has been maintained from "A.F./51/01 Armour, J. M." to "A.F./70/47 Zilm, D. H.". Not one has caused us real trouble, even if some have been a little pernickety or tiresome. A very few have remained in or returned to this country to work, but this trickle of immigration has been completely swamped by a flood of emigrants to Canada in the form of very happy wives. Most Fellows expressed in writing at the end of their stay their appreciation of the way the scheme was administered and a rather surprisingly high number commented on the personal benefit they had gained from living for a time out of Canada and seeing it with a fresh outlook.

My own eleven years as Adviser, including 9 interview tours and one holiday spent in Canada (hopefully not the last) have been uniformly happy and rewarding. From the first I have looked upon my job from the viewpoint of its immediate benefit to Canada rather than of the long-term benefit to the United Kingdom. I have commented in previous articles on the kindness and the help I invariably received and many friendships made will continue for life. Those readers to whom the iron ring is more or less a matter of course will not realize what a thrill the ceremony of induction was to me and with what pride I wear this ring. It is a tangible sign how close my association is with what is to me a second homeland and with what affection I recollect that country and the Engineers in it.

During my interview tours I met many groups of Athlone Fellows collected together and entertained with generous hospitality by the deeply interested and friendly British Trade Commissioners in Canada. These officials move elsewhere after their various tours of duty and all too soon no British Diplomatic Service representatives in Canada will know anything about Athlone Fellows. Many people have expressed the hope that this will not mean the end of social gatherings of Athlone Fellows in suitable centres, but continuation will involve some form of organisation of local groups. I hope that well-disposed individuals in many centres will act as focal points for keeping Athlone Fellows in touch with each other and will maintain liaison with similar focal points elsewhere throughout Canada. I was most disappointed to hear that the 10% response to Dr. Brown's endeavour to list those who wanted to continue some form of Newsletter was not considered sufficient to justify the project. Such seems to be the fate of many questionnaires. In 1961, an enquiry about the desire for an Athlone Tie met with only a 10% response.

Reverting to the Earl of Athlone's words quoted earlier in this article, there is no shadow of doubt that the Athlone Fellowships Scheme is one of the finest ever instituted, that both Britain and Canada have derived great and continuing benefit, and that its demise is deeply regretted. Two distinctive features stand out and these are not found anywhere else in the world. One was that a large number of student engineers went from your country to ours as a coherent body. Other schemes only apply to small numbers of engineers, very often only one or two under a scheme covering other disciplines in greater numbers. Another feature was its flexibility, particularly in allowing a mixed programme of academic work and industrial experience, and no other existing or proposed scheme offers this facility.

The scholarships awarded by the Confederation of British Industry in Canada will not provide similar facilities. Few Commonwealth Scholarships are likely to be given to engineers for the competition is fierce. Other existing schemes will remain static and the overall result must be that the number of Canadian engineers coming to the

United Kingdom annually to further their training or education will fall by about 30. This was quickly realized by Athlone Fellows in Canada and others and several suggestions have been made for small or large replacement schemes originating in Canada. So far there has been no real progress reported to me and it seems that some existing body in Canada has to be found to do the organization. At this end, we will give help but not finance. I hope that something will materialise but it will not be the Athlone Fellowships Scheme.

And so, goodbye, F. E. A. Manning

Jolly Good Fellows—positive recollections of the Athlone Fellowship Article from Imperial Magazine, Issue 44, authored by William Ham Bevan

How the Athlone Fellowship transformed the lives of a generation of Canadian engineers.

"I said I'd waterski on the Thames. Everyone laughed. I had no idea how funny it was until I got to London and saw the river..."

When recalling the interview for the Athlone Fellowship that brought him to Imperial College London from Winnipeg in Canada, **Neil MacKenzie** (MSc Mechanical Engineering 1967) credits an unintended joke with sealing the deal. He says: "I was asked, 'What would you do if you went to London?' I said, 'I'm going to waterski on the Thames.' Everyone started to laugh. I had no idea how funny it was until I got to London and saw what the river was like."

MacKenzie was one of 810 Canadian graduates to take part in the programme, aimed at bringing the country's most talented young engineers to the UK for further training. Named in honour of the Earl of Athlone, Canada's Governor General from 1940 to 1946, it was first mooted by Harold Wilson in 1949 to encourage trade and exchange expertise between the two nations.

The first cohort of Athlone Fellows was selected in 1951. Successful applicants had their passage to England funded, plus their tuition fees, and received a yearly travel grant within the UK, a textbook allowance and a modest weekly stipend (initially £6 10s—the equivalent of around £190 in 2018). They could choose to spend two years—or a single year in some cases—on a university research programme, an industrial secondment or a mixture of the two. The academic route proved most popular. By 1970, when the scheme was wound up, 754 fellows had spent all or part of their time at a British university. Imperial was by far the most sought-after destination, taking a total of 304.

The successful candidates were warned that they would experience culture shock when they arrived in Britain—"especially those, like me, who were living on the western side of the Rocky Mountains and had hardly been anywhere else," says **Gary Elfstrom** (PhD Aeronautics 1971). He adds: "They didn't just pick the highest-marked students as Athlone Fellows, because they might not cope with cultural differences. They were looking for more rounded applicants."

For **Bob Hemmings** (PhD Chemical Engineering & Chemical Technology 1965), one of the first new experiences was the unfamiliar (and unwelcome) smell of kippers at Nutford House, where new fellows were temporarily billeted. A greater surprise was the extent of war damage still in evidence in 1962. He says: "Many areas of London

had bomb-damaged ruins—blocks and blocks of devastation. It became more personal to me when I attended Remembrance Day at the Cenotaph. The war was still an open wound."

Ian Rowe (PhD Electrical Engineering 1967) says: "Being married with young children, the culture shock was felt by my whole family. We had to find out that you used markets, not supermarkets, for groceries if you wanted value. We had to work out the health system and the language: if someone said, 'I'll knock you up at 7am tomorrow', it didn't mean they were going to bang me in the belly."

Dealing with pre-decimal currency presented another challenge. **Spruce Riordon** (PhD Electrical Engineering 1967), who was six years into his career as a radar engineer when he applied in 1963, says: "They still had pounds, shillings and pence. If I had a substantial calculation to do, I'd switch back to Canadian dollars, work it out and convert back. The cars were very small—much smaller than ours—and rationing had ended not long before, so the quality of food was very uneven. But it was exciting to see London."

Becoming part of an international community at Imperial was an education in itself. MacKenzie says: "One way the Athlone changed my life was by showing me I was living in a bigger world than Canada. One day I went to College and around seven of my colleagues weren't there—they were Israeli, and they'd gone back to fight in the six-day war."

When Murray Clamen (PhD Civil Engineering 1973) arrived at Imperial in 1970, there was political volatility in Canada, making for bittersweet memories of his first year. He says: "I went back to get married that winter and there was a serious crisis going on in Quebec. The FLQ [Quebec Liberation Front] had kidnapped the minister, Pierre Laporte and the British Trade Commissioner, James Cross. We later met him at an event, and he spoke about how difficult the situation had been for his family."

The Athlone Fellows also had to adjust to big differences in academic culture, with British research degrees far less regimented than their North American counterparts. Riordon says: "In Canada and the States, you went through a series of examinations and presentations to work towards the point where you could proceed with the thesis. In Britain, you were just thrown in and had to sink or swim. It prepared you for independent research."

Monique Frize (MPhil Electrical Engineering 1969), the second female Athlone, had little trouble in negotiating the male culture of Imperial. She says: "There hadn't been many women at Imperial, but I never felt treated any differently from the men. Everyone was supportive, though Bill the technician would always find one of us

Canadians frying the College power supplies—which we did because the wiring in Canada is different."

Imperial's engineering facilities were locked up outside office hours, leaving plenty of time for extracurricular activities. Bob Hemmings was introduced by another Athlone Fellow to the Victoria League for Commonwealth Friendship, a charitable organisation made up "mostly of ladies; they were very interested in people from the Colonies, and I'd be invited to speak to them about the history of Canada." Through the League, he was able to get seats in the royal boxes of London theatres, including the Royal Albert Hall.

Frize also took advantage of inexpensive opera, ballet and concert tickets. "I'd been a bit of a Quebec separatist in Canada," she says. "That ended very soon after I moved to London and attended the Last Night of the Proms. I was singing Rule, Britannia! as loudly as anyone in the hall. In the summer of 1968, I married an Englishman in Chelsea Registry Office. The years I spent in London and at Imperial remain unforgettable!"

But if there is one attribute that links all the Athlone Fellows, it's a belief that their time at Imperial was pivotal. Elfstrom says: "Employers would see the fellowship and the Imperial PhD on my résumé, and doors would open. It was a tremendous start to my career. Though I didn't end up as the rocket scientist I once dreamt of being, I still ended up in the high-tech aerospace field that grabbed me and never let go."

Rowe says: "Athlone Fellows were expected to become leaders, and many of us did exert great influence in Canada. I wouldn't call myself a captain of industry, but I think I met the criteria for leadership: learning to cultivate the skills and motivations of the people around me and bring the most out of them. And there was a camaraderie that has stayed with us. That's a lifelong thing."

In a measure of that comradeship, reunions took place last year in Toronto and Ottawa. More activities are planned, both as a means of renewing links and of exploring whether a similar programme could be brought back.

It's a plan that appeals to Clamen, a member of the youngest group to benefit from the fellowship. He says: "The Athlone had a very significant impact on me, my wife, my family and my career—and it forged friendships that have gone on to this day. It was a special time in my life, and I'm very grateful that the scheme was created."

The Good Fellows [who participated with the author of this article]:

A total of 810 Canadians took part in the Athlone Fellowship scheme between 1951 and 1970, the majority (304) at Imperial, including:

Robert Leslie ('Bob') Hemmings read Chemical Engineering at the University of Alberta before coming to Imperial as an Athlone Fellow in 1962. He graduated with a PhD in the same field in 1965.

Neil MacKenzie, a Mechanical Engineering graduate of the University of Manitoba, won his fellowship in 1966. He chose to spend a year at Imperial, reading for a MSc in Operations Research and Management Science, and then taking up an industrial placement at the Birds Eye frozen-food division of Unilever.

J. Spruce Riordon came to Imperial in 1963 after completing a Master's at McGill University, Montreal, and spending six years working on radar development at the National Research Council in Canada. He was awarded his PhD in Electrical Engineering in 1967.

Ian Rowe, a University of Toronto alumnus, was working for the guided missiles division of de Havilland of Canada when he accepted an Athlone 'B' Fellowship in 1964. He studied for a PhD in Automatic Control Systems at Imperial, successfully completing his studies in 1967.

Monique Frize (née Aubry) received a BASc in Electrical Engineering from the University of Ottawa in 1966. In 1967, she became only the second woman to win an Athlone Fellowship, electing to spend two years at Imperial on an MPhil programme in Electrical Engineering (Engineering in Medicine).

Gary Elfstrom, a graduate of the University of British Columbia in Vancouver, won his fellowship in 1968 and arrived at Imperial the same year. In 1971, he graduated with a PhD in Aerospace, Aeronautical and Astronautical Engineering.

Murray Clamen followed his undergraduate studies in Civil Engineering at McGill University with a PhD in Hydraulics at Imperial. He was part of the last cohort of Athlone Fellows to be selected.

Follow on from the Athlone Program

The #15 Newsletter included a write up of the situation regarding finding a means of continuing the Athlone Fellowship program in some form, and requesting input. A similar article was focused on the continuing of the Athlone Newsletter (but without a very positive expectation). In the 16th, and last Athlone Newsletter, there are interesting comments on the Athlone Fellowship in the whole body of the Newsletter, as well as in the Forward.

In fact, there were some interesting developments that involved the development of the Athlone-Vanier Fellowship, but its origin is somewhat unclear.

It turns out that there was some attempt to follow on with the program, the creation of a company called "The Athlone-Vanier Engineering Fellowships", was a company governing under the Canada Corporations Act - Part II - 26 April 1989 (Wednesday). It was incorporated on 26 April 1989 (Wednesday) in Canada and as of 26 June 2006 (Monday) became a dissolved company.

There was an announcement made in October of 1989 on the initiation of a follow-on Athlone-Vanier Engineering Fellowship Program, with the following address on the announcement. Unfortunately, nothing appeared to have been published about this effort. However, there seemed to be continued interest in such a program, as indicated in a recent article from Wikipedia:

Vanier Canada Graduate Scholarships—from Wikipedia

The Government of Canada launched the Vanier Canada Graduate Scholarships (Vanier CGS) program in 2008. The program is designed to attract and retain world-class doctoral students by offering them a significant financial award to assist them during their studies at Canadian universities. Vanier scholars demonstrate leadership skills and a high standard of scholarly achievement in graduate studies in the social sciences and humanities, natural sciences and engineering, or health-related fields. Scholarship recipients receive \$50,000 each year for three years.[1] Once fully implemented, the program will support up to 500 scholars[2] annually.

The Vanier CGS program helps Canada's universities attract excellent doctoral students from across Canada and around the world. These promising scholars help create a dynamic and innovative environment on Canadian university campuses.

Further, the article goes on to give the following background information:

It was named after the same person who was an Athlone Fellowship sponsor back in 1951—Georges Philias Vanier—The Vanier CGS program honours distinguished Canadian soldier and diplomat Major-General the Right Honourable Georges Philias Vanier (1888-1967), who served as governor general of Canada from 1959 to 1967.

Also, it appears that the program is no longer an overseas program, as indicated by this statement: *Governance*—Vanier Canada Graduate Scholarships are administered by Canada's three federal research granting agencies (the Canadian Institutes of Health Research [CIHR], the Natural Sciences and Engineering Research Council [NSERC] and the Social Sciences and Humanities Research Council [SSHRC]).

Vanier CGS nominees are evaluated by agency-specific multidisciplinary peer review committees that forward selected nominations to an independent, interagency selection board. This board selects the Vanier CGS recipients.

This program is also described by the Canadian Government: "Many [of these scholars] will stay to pursue academic and professional careers in Canada, helping to foster innovation and creating future leaders.

The Vanier Canada Graduate Scholarships (Vanier CGS) was announced in the 2008 federal budget as part of a broader strategy to increase the supply of highly-qualified research personnel in Canada and brand Canada worldwide as a nation known for quality research and research training. These concepts are central to the Government of Canada's science and technology (S&T) strategy, announced in May 2007, which set out a multiyear framework for improving Canada's long-term competitiveness. Attracting and retaining the best minds to innovate within Canada is a government priority. Canada's prosperity as a nation is increasingly based on science and technology and the highly skilled and creative individuals whose talents bring innovations to life. Their ideas spark the creation of new products, services and policies that support Canada's economic competitiveness, strengthen social foundations, sustain the environment and improve the quality of life for all Canadians.

The Vanier CGS program is one of a suite of elite federal research capacity development programs. The suite begins with early graduate student support through Vanier Canada Graduate Scholarships, progresses to postdoctoral training through the Banting Postdoctoral Fellowships program and continues through the academic career

progression (Tier 1 and 2 Canada Research Chairs) to a career pinnacle (Canada Excellence Research Chairs).

Together, these programs are intended to increase the supply of highly-qualified research personnel in Canada and brand Canada worldwide as a nation known for quality research and research training. They complement other training vehicles, including doctoral scholarship programs supported by the three federal granting agencies (Canadian Institutes for Health Research—CIHR, Natural Sciences and Engineering Research Council of Canada—NSERC, and the Social Sciences and Humanities Research Council of Canada—SSHRC).

The Vanier CGS program allows highly motivated and competitive students to realize their full potential and develop their careers. Upon completion of their award, Vanier Scholars will be well positioned to contribute to the continued growth of Canada's research capacity and the country's economic and social prosperity.

Conclusion

During the early operation of the Athlone Fellowship Program, there was no formal communication between the program organizers and administrators, and the Athlone Fellows. After five years, an annual newsletter was initiated, and was produced every year until the program was terminated in 1970. One of the best indicators of how the program was working was the Forward and the Notes of each of the Newsletters that I was able to locate—all but the first 5 issues.

Although I have not been able to locate a formal evaluation of the Program in any of the documentation received, it seems obvious to me that this Athlone program was really excellent for the Engineers that were honored to be selected. However, a formal analysis of the impact of the program on the trade in British engineering goods and services seems to be lacking, as there appears not to be a method to be used to make this evaluation. And such a method could be quite complex, probably more than a simple comparison of increases in British trade with Canada as a function of time and number of Athlone Fellows, perhaps with a delay of 10 years after the Athlone Fellows' award date.

I can only conclude that the Program, once initiated, was part of a complex government funded program that was not too large to attract too much attention until, eventually, it was questioned by the Department of the Treasury. Once questioned, it was subject of some kind of a study, to which I have previously referred, and could not be defended in the political arena, and was thus terminated.

For as many of the Fellows as I was able to contact, the Program was exceedingly successful. It brought new experiences to 810 well qualified Canadian engineers, experiences that most would not have otherwise happened. For many, like myself, the Athlone allowed them the pleasure and privilege of visiting the heart of the British Commonwealth, and also the benefit of earning an advanced degree from a prestigious British university, or acquiring unique engineering experience at a leading British engineering industry. In addition, all the Fellows had the opportunity to see and to live the British experience during those two redevelopment decades following the end of the Second World War.

In my own case, being an Athlone Fellow provided me with professional opportunities that certainly would not have been open to me without it. With the words "Athlone Fellow" on my resume, I was more interesting to more industries than I would have been otherwise. And the Athlone experience, especially at Imperial College, was an experience during which I learned how to learn, which is reflected by my attainment of my PhD and DIC from Imperial. Further, with that experience I was able to make a success in the many aspects of

my career, mainly in the field of nuclear power engineering, from R&D through design, to commissioning, to operations, to waste management, and to decommissioning—including both neutron fission and fusion reactors.

Bob Hemmings says: "Thank you, Athlone Fellowship Program!"

Acknowledgements

The following Fellows, and friends of Fellows, have been of great help, especially in locating information on the Athlone Fellowship Scheme, and offering advice on the earliest versions of this work. Without their assistance, this would have been a very poor effort. But their interest, encouragement, and generosity makes the work more complete.

Dwight Aplevich	Bill DeCoursey	Arthur Plumpton
Jack Banks	Gary Elfstrom	Ian Rowe
Tom Carter	Bob Frederking	John Sankey
Peter Castle	Ken Johns	Brian Staples
Murray Clamen	Neil MacKenzie	David Stone
George Davies	Ken Montgomery	Eric Thomson
Neville Davis	Fred Parkinson	Ron Weir

And, without the support of my wonderful wife, Micheline, who had to put up with me being distracted over the past many months while I tried to bring order to all the information that I eventually gathered. And who reminded me of various stories about my stay in the UK during my stay with the Fellowship.

My thanks to all! R L Bob Hemmings

Athlone Part 2

Now and Then

RL Bob Hemmings
29 December 2018
3rd Revision
October, 2021

I was able to "get to know" some of these Fellows by reading these letters. And, I am proud to have made some contribution to the collective history of the Athlone Fellowship

Copyright © 2021 RL Bob Hemmings

Contents—Part 2

Intro	oduction	4
Rece	nt Letters from Athlone Fellows	5
Do	oug Wright, Athlone 1952, UofT /U of Illinois—March 2018	5
Mι	urray Clamen, Athlone 1970, McGill—May 2018	6
G.	S. Peter Castle, Athlone 1961, U of Western Ontario – June 2018	7
Ke	n Johns, Athlone 1966, McGill—June 2018	8
Ma	arc Filion, Athlone 1970, Ecole Polytechnique—June 2018	. 10
Eri	ic Thomson, Athlone 1969, UofA—June 2018	. 11
Ke	n Montgomery, Athlone 1968, University of Manitoba – June 2018	. 12
Ian	n H. Rowe, 'B' Athlone 1964, UofT via de Havilland Aircraft—June 2018	. 14
Be	n Smith, Athlone 1959, Dalhousie—November 2020	. 16
Ro	n Johnston, Athlone 1962, UofA—July 2018	. 19
Ear	rle Lockerby, Athlone 1964, Nova Scotia Technical College — July 2018	. 20
L. 1	Robert Morris, Athlone Fellow 1965, Toronto—July 2018	. 25
Dv	vight Aplevich, Athlone 1964, USask—August 2018	. 32
Ro	d Desborough, Athlone 1965, NSTC/TUNS/DALTECH—December 2018	. 33
Mi	ike Campbell, Athlone 1957, Nova Scotia Tech—December 2018	. 36
Do	on Shields, Athlone 1955, USask—June 2020	. 37
Do	on Shields: the Athlone and my Career, June 2020	. 42
Re	cent Letters from Athlone Fellows in the Imperial College Newsletter	. 43
(Gerald Crawford, PhD, Metallurgy 1960	. 43
F	Bob Morris, DIC, PhD Electrical Engineering, 1970	. 43
Jol	lly Good Fellows	. 44
Com	ments & Letters from the Athlone Newsletters	. 49
M	y First Year in Britain, by F. C. Lockwood, 1960 (#3)	. 49

Short Thoughts, by Paul Ukrainetz, 1960 (#3)	55
Impressions Of An Athlone Fellow, Roger Labonté, 1960 (#3)	56
Introduction	56
The London Scene	56
Its people	57
The life of London	57
Conclusions	58
From McGill University-1960 (#3)	58
An Industrial Visit—by S. R. Swanson & T. R. Nettleton–1960 (#3)	59
SHORT REFLECTIONS FROM MID-ATLANTIC-by E. Fanjoy (#5)	62
Heather Ski-ing-by R. S. Forbes #5	64
COMMENTS—by John Almond–1952 (#6)	69
COMMENTS—by H. R. Beck, 1952 (#6)	69
COMMENTS—by R. E. Chamberlin, 1951 (#6)	70
COMMENTS—by Red Henderson, 1956 (#6)	71
COMMENTS—by B. Lamarre, 1952 (#6)	71
COMMENTS—by Robert Newey, 1952 (#6)	73
COMMENTS—by Maurice Poupard, 1954 (#6)	74
COMMENTS by J. P. Vilagos, 1955 (#6)	74
COMMENTS—by Paul Webb, 1955 (#6)	75
SCARLET BEADS OR STOMACH ULCERS? — by Ian S. Gartshore, 1957 (#6)	75
IMPRESSIONS FROM WALES—by R. P. D. Round, 1960 (#6)	79
SLAVE MART-by C. M. Woodside, 1960 (#6)	81
Post Grad Study in Canada and in the UK-by S. M. Lyle 1960 (#7)	82
Stereotypes And Impressions – by Diane and Donald Woods, 1961 (#7)	84
"F I T B A" (Glasgow style!)—by W. Robert Tucker, 1960 (#8)	88
Reflections on the Athlone Fellowship Scheme—by F. E. Collins, 1960 (#8)	90

A Medical Scheme—Lucky Fellow!—by R. N. Stone, 1961 (#8)	92
Scotland at Leisure – by R. G. P. Tischuk, 1962 (#8)	95
Reflections on the North of England – by Mr. J. L. Crosthwaite, 1962 (#10)	97
On a Bicycle Built for Two-by W. R. Tyson, 1961, and his wife (#10)	98
A Wife's Tale—by Betty C. Nitkin, 1962 (#9)	100
Life in the Provinces—by C. B. Chapman, 1962 (#9)	103
New Fellows might find this Useful—by Mr. Ian H. Rowe, 1964 (#11)	104
Benighted—by Mr. R.D. Weir, Ph.D., 1963 (#11)	105
Hello, Goonhilly—by Mr. Gerard Terreault, 1964 (#11)	107
Christmas in Britain—by Dr. and Mrs. R. G. Matheson, 1964 (#12)	108
Tittles—by Mr. T. G. O'Flaherty, M. Sc., 1965 (#12)	110
A Holiday in the U.S.S.R.—by Mr. S. F. Turcotte, M. Sc., 1965 (#12)	112
Advice for New Athlones – Dr. Tobias Gilsig, 1963 (#12)	114
Educational Progress: - by John R. Grace, 1965 (#13)	115
We're Backing Scotland—by Ruth and Edwin Heinrichs, 1976 (#13)	118
In Pursuit of Culture–London – by D. C. (Cam) McAlpine, 1967 (#14)	119
Can a Canadian Teacher ever Teach in an English School, by Heather MacKe	nzie,
1967 (#14)	121
Brass Rubbing—by J. D. (Doug) Macdonald, 1966/69 (#15)	123
The ITCH—by Brian P. Grover, 1961 (#15)	126

Introduction

During the past years that I have been putting together my "history" of the Athlone Fellowship, I have collected several letters from Athlone Fellows. And I present them here, in three sections:

- Recent Letters from Athlone Fellows, in response to my request
- Recently Published letters (in the Imperial College Magazine)
- Letters that were published in the Athlone Fellowship Newsletters #1 to #16

After reading through all of these letters, it is obvious that all the Athlone Fellows who wrote these letters were:

- Proud to have been selected for the Athlone Fellowship;
- Successful in their Fellowship work, whether academic or industrial, or a little of both;
- Happy to have had the experience of studying and living in the United Kingdom, and learning first-hand that there were real people living there who were also from many other parts of the world;
- Feeling that having had the Athlone Experience made them better at their chosen careers, whether in academics, in research, or in industry;
- Thinking that their whole approach to life had been broadened because of the Athlone Experience;
- More confident in being able to deal well with new developments and challenging circumstances;
- Successful in their lives partly because of the Athlone Experience;
- Happy to have developed many new friends from all over Canada with a common experience, the Athlone Fellowship.

I was able to "get to know" some of these Fellows by reading their letters. And, I am proud to have made some contribution to the collective history of the Athlone Fellowship.

Recent Letters from Athlone Fellows

Doug Wright, Athlone 1952, UofT /U of Illinois—March 2018

I had graduated in Civil in 1949 from Toronto. Had finished grade 13 in 1945 at 17. Too young for WW2, but just in time to enter university with returning veterans. My class was over 80% ex-service. U of T could not handle the numbers—so Ajax which had been one of the world's biggest shell filling factories, was converted to hold the first year class. We had wait until January '46 to start the freshman year, for finishing the conversion. For the next 4 or 5 years UofT did all first and second year engineering classes at Ajax.

At that time there was almost no graduate study in engineering in Canada.

In 1949 I went to U of Illinois to do a Master's degree. I had started on my PhD degree there, when the Athlone scheme started in 1951. I applied in 1952 for two reasons. The US draft board in downstate Illinois started drafting foreign students, and I decided it would be better to go to work with Baker and his plastic theory group in Cambridge.

I spent some time working in a consulting engineering office in Toronto before sailing from Quebec in Sept '52.

I remember London full of empty basements. They had cleared most of the rubble. But very little new construction had started.

But Cambridge was great. Got into Trinity. Terrible food but everything else was wonderful.

My supervisor was only about 5 yrs older than me. Not knowing better I started off on a first name basis. I later realized that I was perhaps the only research student in Cambridge enjoying such informality!

Cambridge didn't (doesn't) recognise other universities' degrees—except for Oxford and Trinity Dublin. But I was able to apply to shorten my work there by a year on the basis of research experience at Illinois. So I got my PhD degree in about 20 months!

Spent a lot of time in London. Saw the Coronation parade in London from a seat in the stands in the Mall. On my second or third day in London in September '52 met a girl from Australia, at tea in Sloan Square—we married in Kingston in 1955. I never understood how, but we were invited the THE Coronation Ball in

June '53, held at the Hurlingham Club. I never heard of anyone else from Cambridge getting invited!

Regards Doug Wright [used with permission.]

Murray Clamen, Athlone 1970, McGill-May 2018

My (future) wife and I had been dating for three years when I found out I had been awarded the Athlone. The prospect of living overseas for up to three years (I had chosen the two year academic option) to do my PhD spurred on my proposal and wedding plans! I flew over to London in September 1970, returned in December to get married, then flew back with my new wife to live in London and environs (I went to Imperial College as you know) for almost three years. We made friends, traveled the country and the continent and will never forget the initial three years of our marriage together—all as a result of this Fellowship.

As for my career, my initial three employments were linked to my winning the Athlone. In my second job, the Vice president of the company had been awarded a Fellowship himself (he was from the University of Alberta) and so knew how valuable an award that was. We remain friends to this day. When I changed jobs several years later, to move to Ottawa and the federal government, my (future) boss said after the interview that winning the Athlone was a key factor in hiring me as he knew all about the vigorous selection process.

Finally, political events around the time of my travels to and from the UK are something I will never forget. There was unrest in my home province of Quebec as the FLQ (Quebec Liberation Front) had kidnapped James Cross (British Trade Ambassador to Canada) and a Quebec Minister Pierre Laporte in support of their demands. Ultimately, Minister Laporte was murdered but Ambassador Cross was released and later was able to address the Athlone Fellows in a meeting arranged for him to recount his experience. And in an interesting coincidence, the day I was flying back to Montreal in December 1970 for my wedding, as I was landing at the airport, some of the kidnappers were being flown to Cuba as part of the negotiated settlement in this very sad affair.

So that is why the Athlone Fellowship means so much to me, my wife, my family and my career! Hope you found this interesting.

Best regards Murray [used with permission.]

G. S. Peter Castle, Athlone 1961, U of Western Ontario—June 2018 Athlone Honeymoon

The year 1961 was an auspicious year for me and my fiancée Judy.

After meeting on Labour Day Weekend in September 1958 and enduring 3 years of long distance courtship (she in Toronto training to be a nurse at Sick Children's Hospital, me studying Electrical Engineering in London, Ontario at the University of Western Ontario) we were looking forward to both our graduations in the summer and our long anticipated marriage on Saturday, Sept 9. This was carefully timed to follow Judy's final examinations for becoming a Registered Nurse slated in Toronto for Wednesday and Thursday, Sept 6 and 7.

In early 1961 life was unfolding as it should. I had a choice to make over whether to continue to a Master's degree at University of Toronto or take one of several possible engineering job offers. Judy could continue her nursing career at Sick Kids or almost anywhere she chose.

My final term was occupied with schooling, investigating job opportunities and, oh yes, an interview for the Athlone Fellowship.

Spring brought the wonderful news of being selected to receive the Athlone. We were extremely excited and delighted with the prospect of starting our married life in England and the possibility of me undertaking the Master's degree, not in Toronto, but at the prestigious Imperial College in London, England.

Details soon followed the announcement and it transpired that all the Fellows would be going to England as a group aboard the Cunard ship Ivernia. Double excitement; an ocean cruise before cruising became in vogue!

However a serious complication soon became apparent. The departure date was announced to be Friday Sept 8, one day before our planned wedding and only one day after the RN exams in Toronto. What to do?

The answer was clear.

We changed the wedding date to Saturday, Sept 2 a holiday weekend (coincidentally three years to the day after we met) and dealt with the subsequent fallout.

This involved rescheduling the church arrangements and required Judy to obtain complicated paperwork in order to apply for a passport in her married name

prior to the wedding. The passport was sent to the officiating priest ahead of time who kept it guarded until after the ceremony. I doubt if this would be possible today. Following the wedding reception we departed for a brief honeymoon in Port Elgin, Ontario returning on Tuesday. Judy refrained from bringing her study notes but it was difficult to completely put the prospect of the exams out of mind. On Tuesday evening, I departed by overnight train for Montreal and Judy spent the following two days, writing the required four, three hour qualification exams. Fortunately she was able to write them at Victoria Hospital in London rather than in Toronto. After her final exam on Thursday she boarded an Air Canada flight for Montreal arriving late in the evening.

Early Friday morning Sept 8, we joined all the other Athlone Fellows and wives for a special Mayor's reception at Montreal City Hall followed by boarding the Ivernia to start our voyage to England.

This then marked the start of our real honeymoon. Of the 40 Fellows in 1961, 14 were married couples but we were definitely the most recent. We landed in Southampton on Friday September 15, followed by a train trip to London and on to Nutford House, our residence for the next week. My costs on this marvelous 7 day ocean voyage were covered by the Fellowship but Judy's were invoiced and paid in advance to the Board of Trade for the grand total of \$198.50 for sea, plus \$3.26 for rail.

In hindsight this flurry of activity followed by the Honeymoon time on the ship proved a perfect way to launch our new life together. We are forever grateful for opportunities provided by the Athlone Fellowship. It enabled us to pursue further education and work experience, required us to be independent, provided broadened life and cultural experiences and enabled us to meet new interesting people, many of whom have remained lifelong friends.

G.S. Peter Castle, Athlone Fellow, 1961 [used with permission.]

Ken Johns, Athlone 1966, McGill—June 2018

I am pleased to be on this list, and can confirm that I am, indeed a willing partner in your endeavor.

When I was a kid, a young man across the street, Ross Chamberlain, became an Athlone. This would have been, I reckon, about 1951 or so. I was seven or eight years old. That was when I first imagined what that might be like, I think. I

became an engineering student, as most men in my family tried to do, and won the Athlone in 1966. I met Neil MacKenzie on the boat on the way to Liverpool and we are still very good friends.

(Ross Chamberlain did a Ph.D. in Birmingham in structural engineering, returned to work at Dominion Bridge in Montreal and eventually became their Vice President, and went on to the U.S. parent company when DB was bought by them.)

I was in England from 1966 to 1970 and did a Ph.D. in structural engineering at University College London. My supervisor was a brilliant guy Prof. Henry Chilver, later knighted and named to the House of Lords, who also did a lot of administrative work and government committee work.

I eventually came back to teach at the new Université de Sherbrooke. My career unfolded there until 2010. I always taught, but passed through various positions there, including Department Chair, Dean of Engineering and a stint as university Vice president for administration. One of my richest experiences was helping the new Faculty of Engineering get going in Rwanda in Africa in the 1980's. I also did some Quebec government committee work (on the olympic stadium in Montreal and the safety of the structures of our Power network).

Of course the Athlone experience deeply influenced my life and taught me many things. I became more politically and internationally aware, studying in London with students from all over the world; from Africa, the middle east, the Indian subcontinent especially. Graduate studies outside Canada, especially overseas, brings valuable insights into how other countries organise their universities and their industries. Europe and Britain were already, at that time, confronting problems which became important in North America quite a bit later, for example high energy costs, integrating immigrants, organising health care, and so on. And Canadian students made significant contributions to engineering and science in the U.K. while they were there.

Ken Johns [used with permission.]

Marc Filion, Athlone 1970, Ecole Polytechnique – June 2018

Thank you for reminding us to leave behind a strong "Thank you" note to the Athlone Fellowship. Here is mine.

I am a 1970 graduate of Geological Engineering from École Polytechnique of Montreal and selected for a 2-year Master at the Royal School of Mines, Imperial College which matured into a Ph.D in Economic Geology awarded in 1973. This turned out to be the beginning of an exciting 17-year international career as responsible for the development of important mining exploration projects and of technology transfers towards then less advanced countries such as Iran, Niger and Thailand. After a 4-year part time MBA in International Project Management at Haute Étude Commerciales of Montreal, I started a second stretch of my life developing mining and engineering companies abroad on most continents for one of the largest international engineering firms and later on for my own account. I now take pleasure in sitting on multiple boards of directors some of which I chair in the fields of mining and heavy industrial manufacturing.

And not to forget! All this was, and still is, supported by a lovely entrepreneurial wife who always followed me when we lived abroad—as it was a non-negotiable condition. In that we lived a great life as our now grown up four kids like to remind us.

I do take pleasure in acknowledging that my first steps outside Canada were due to the Athlone Fellowship and for that I am grateful. Thank you for opening that door to an enjoyable career and life.

Marc Filion [used with permission.] Président, CHIM International 125 Chemin du Lac Noiret, Wentworth-Nord, Qc, J0T 1Y0 Tel: 450-226-8387

Eric Thomson, Athlone 1969, UofA—June 2018

The Athlone Fellowship, my experience: Eric Thomson, Engineering Physics, 1969, University of Alberta. 1970 Imperial College, London, Materials Science, DIC, MSc. 1971 Oxford University, Laser Physics, DPhil. (1973)

The Athlone Fellowship Award gave me my first chance to live overseas. I had also been accepted in the USA at Stanford and MIT but moving to England seemed most exciting.

The Athlone program helped me chose amongst the many fine UK universities. The Award also affirmed the balance I had achieved between sports and academics during my undergraduate years.

The 1969 group of Athlone Fellowship engineers went, as a team, on the same plane from Montreal (in those days on the route to England we had to refuel in Iceland!).

Technologically, that was the year we watched the first landing of humans on the moon and the first 747 Jumbo jets landing at Heathrow.

In my technical field, there were demonstrations of the first low loss optical fibers and practical room temperature laser diodes for telecommunications.

So the Athlone Fellowship got me started at Imperial College to study optical materials for high speed modulation of laser beams, and at Oxford I studied the generation and amplification of laser light.

I was on swim teams for Oxford and Imperial College, and tried my hand at water polo and rowing. On some weekends I cycled around London doing brass rubbings at old churches. During my four years in England there were several "conversions": on Decimal Day 1971 twelve pence in a shilling became 100 new pence per pound sterling, house heating converted from coal gas to North Sea gas, and the UK joined the European Common Market.

Student life in the UK put me in touch with students and athletes from around the world. At the end of my studies on the long way back to Canada some of my new friends had me visit them in their home countries including France, Sweden, Thailand and Japan.

Altogether, the Athlone years were a highly valuable experience of my life.

Eric Thomson [used with permission.]

Ken Montgomery, Athlone 1968, University of Manitoba – June 2018

In reply to your request to describe how the Athlone Fellowship impacted my life, here are a few of my thoughts and memories.

Fifty years ago this September, I was about to embark on a journey of a lifetime. I had been awarded a one-year Athlone Fellowship, had just graduated with a BSc in Mechanical Engineering from the University of Manitoba (UofM), and was about to undertake a Master's Degree in Thermal Power and Process Engineering at Imperial College. Looking back, my life has been impacted in so many ways by this experience, and has created many cherished memories.

I had been to London for an Easter vacation during high school so I had a glimmer of what I might experience. But one of my first memories on the journey was sitting on the airport bus outside the Queen Elizabeth Hotel in Montreal, and watching a guy about my age who was about to board the bus, come out with a couple of backpacks, and then a pair of skis, and then a tennis racket, and finally a squash racket. I thought he must be going on a great holiday. Turns out he was an Athlone Fellow from Queens headed for Imperial College—we became great buddies at Imperial.

The "book learning" dimension of the Athlone was naturally a central focus. But being parachuted into the UK educational system where specialization starts much earlier created some challenges, and gave me an appreciation for the differences from the Canadian system. The need to tune up my mathematics and computer knowledge was a bit of an eye-opener. The unprecedented experience of defending my MSc. thesis while somewhat frightening, was a learning episode, and taught me to be fully prepared and anticipate what might be challenged—this stuck with me throughout my career.

The Athlone Fellowship was aptly named because I developed lifelong friendships with some of the other Athlones from UofM, as well as classmates from the UK and other parts of the world. I ended up being "best man" at my English classmate's wedding in Toronto, and toasted with a couple of bottles of Newcastle Brown Ale that I carefully transported back to Canada. Living in the new Linstead Hall residence in Prince's Gardens across the street from Imperial, immersed me in a multi-cultural environment that broadened my outlook to say the least. We had our own bar that we took turns manning, had social events, and religiously watched Top-of-the-Pops every Thursday evening on the common area TV. My fellow UofM Athlone and I challenged others "hall mates"

to foosball matches and learned some new English expressions. There were however some rules to living in residence, such as girls had to be out by sunrise!

Of course, London was a fantastic place to experience live theater, and music. I loved musicals in particular since I had not taken in any such shows in Winnipeg. The West End was magic. The music scene was also alive in the late 60's, and I recall seeing the Rolling Stones at a free outdoor concert in Hyde Park. And getting a six-shilling nose-bleed standing room ticket to hear the 1812 Overture in Royal Albert Hall, was another unforgettable memory.

Since I was lucky enough to live at home during university (or not), the experience of residing in a foreign country offered some unique experiences that really opened my eyes to the world. Living in London in the late sixties was exciting enough, but some of my Athlone friends and I managed to work in a Christmas ski holiday to Kitzbuhel, Austria. I agonized about making the decision to go because I had a couple of exams within a week of the return date. It was one of my first "oh what the hell I'm doing it" decisions, which created a sense of adventure which carried on throughout my life, and I learned not to pass up once-in-a-lifetime opportunities. In the Spring of 1969 I bought an old Bedford Dormobile, a small camper van, and over the next year used that to roam the countryside visiting Cambridge, Oxford, the Cotswolds, the Whitby Folk Festive near York, and doing brass-rubbing in the South of England. It also made a trip to Paris. The whole living-abroad experience created a sense of restlessness such that when I returned to Canada I didn't want to live in Winnipeg—some might say that my first move to Regina was not a step up. That desire for seeing new countries and cultures however drove me to pursue, a career in international business development in the offshore oil and gas business and then marketing pipeline engineering and project management services in South America, Europe, and the Middle East. I had the chance to learn Spanish in order to do business in Latin America, which came in handy on several vacations. Between business travel and vacations, I have been lucky enough to have visited sixty-eight countries around the world, so far.

With the Athlone Fellowship, and the DIC from Imperial, I learned that I was part of an international fraternity. While doing international work I found that most countries are very conscious of the degrees you have earned, and from which universities. So, I added MSc. and DIC to my business cards. I have a distinct memory of meeting a government energy director in Amman, Jordan and when I presented my business card to him he said, "oh, you went to

Imperial too". We ended up doing a feasible study for the development of a gas field and gas turbine power plant for the ministry. It was indeed a small world.

The Athlone Fellowship was an incredible eye-opening and broadening experience of a lifetime which impacted the trajectory of my life, and my view of the world in so many dimensions: cultural, religious, technical, social, music, sports, politics and beyond. These have been just a few of my most vivid memories. [used with permission.]

Ian H. Rowe, 'B' Athlone 1964, UofT via de Havilland Aircraft—June 2018 To be a 'B' or not to be: that is the question

In 1959, I went to work, after completing my Master's program in Electrical Engineering at the University of Toronto, following a first degree in 1958 in Engineering Physics, also from the University of Toronto. The Guided Missiles Division of de Havilland Aircraft Canada offered interesting work with great growth opportunities. The primary challenge was in research and development of infrared systems for detection of enemy aircraft. With access to state of the art devices that were not commercially available, I found it inspiring to work with a talented group of dominantly Engineering Physics graduates from prior years.

By 1963 I was promoted to a management role with greater freedom to innovate and bring infrared signature detection to a new level. This is, apparently, what drew the attention of Dr. Ormond Solandt, former chairman of the Defense Research Board, who had joined the board of directors of de Havilland. I had met him once before when he was touring the Division at which time he spent considerable time with me asking leading questions. To my surprise, a number of weeks later, he again appeared in my lab which, surprisingly, emptied of staff; I did not have a private office. He went right to the point and said that the Directors believed that I should get a PhD degree and had a plan for me. Clearly, he was aware that I had a wife, Shirley, and two young children to support. The company would match whatever award I could secure, wherever I wanted to go, in an area of interest to the Division. Now that was a surprise! And Shirley responded excitedly at the prospect.

From then on, I anxiously sought to find an appropriate, highly regarded university that offered adequate financial support, while allowing me to pursue my graduate program full-time, without placing a burden on my family. The children were two and four. The search appeared to be an overly constrained

problem. Fortuitously, two highly regarded friends with PhD's from Imperial College of Science and Technology—Professor Gordon R Slemon, my master's thesis supervisor, soon to be co-author of my first major journal publication, and Dr. Donald G Watts, mathematician and close co-worker at de Havilland, stepped in. Gordon introduced the prospect of the Athlone Fellowship and Don resolved the housing issue while in the UK by putting me in touch with a Reader from Imperial who was going on sabbatical to the USA. He also offered helpful guidance on navigating Imperial College.

Coming into the selection board as an Athlone 'B' applicant with strong industrial research references and experience with a British-owned company, I was warmly welcomed by the Athlone Selection Committee. The Board of Trade and the British Council would coordinate all of the arrangements including transportation for the entire family as well as other comparatively generous terms. I felt that the interview was fair and inspiring; the terms of the offer gratifying.

To be a 'B' or not to be, was no longer a question but an answer to broadening the latitude of my career as well as the scope of the lives of our entire family.

The next step was to bridge the transition from Canada to the UK. This included selling our Willowdale house in a slow market; a challenge I decided to take upon myself.

The first step called for erecting a for-sale sign on the front lawn. I hand made such a sign, attaching it to a 2 x 2 with a suitably pointed end for driving into the ground. Not possible given the impenetrable state of the frozen sod. First, I tried warming the sod with my propane torch. Not successful. The final solution? With a brace and bit I drilled four deep, closely-spaced, half-inch holes. I then poured gasoline into the holes and ignited it. After the second or so such blaze I was able to position the sign and properly present the house for sale. Fortuitously, being late in the evening, the conflagration went unseen while my neighbors were watching TV, not me. My marketing efforts were successful, giving us a nest egg to draw upon if necessary. We then readied ourselves, our possessions reduced to a steamer trunk and a couple of pieces of luggage, for the voyage to the UK on the Empress of England.

Epilogue 1: As I write this, our daughter Cheryl, a Professor of Rehabilitation Science, McMaster University is delivering the keynote address at the London 2018 Conference: DCD UK (Developmental Coordination Disorder); DCD is a chronic neurological disorder beginning in childhood. Our son Kevin, who now

lives in the USA, was a founding partner in a London hedge fund. He is married to a British graduate of the London Business School.

Epilogue 2: I had the distinct honour to be included in the Ontario sector Interview Tour for the 1970 Awards, the last given. I do recall seeing a bowler hat worn by one of the participants, an observation that inspired fond recollections of living in the UK.

Copyright © 2018 Ian H Rowe [used with permission.]

Ben Smith, Athlone 1959, Dalhousie—November 2020

My Athlone Fellowship Story

The committee had arranged for me to go to Bristol to team up with three other young graduate engineers in the British Siddeley Graduate Apprentice Program so I was to catch a train and someone was to meet me and take me to my "digs."I caught the train but nobody was there to meet me (I had arrived 50 minutes early).

[Lesson 1: instead of trains running once a day as in Nova Scotia they ran several times an hour in England - "We were expecting you on the 10:15."]

On arriving at my "digs" I met the lovely family of which I became very fond: mother (great cook), father (barber who had served in the air force during WW.2 and a Bristol Rover fan, and 11 year old daughter who eventually married an engineer.

I learned from the Automobile Association that I could purchase a new VW "beatle" without paying any tax provided I "exported" it to the continent within 12 months. So, ordered the car right away and had the driver's seat removed and welded in two inches father back to fit my 6' 7" frame.

I used it to explore the beautiful countryside around southwest England, Glosturshire, and Wales (sometimes with my hosts), joined the company basketball team (hot showers twice a week), played contract bridge competitions a couple times a week (the club had central heating), attended Bristol's excellent theatre, explored the back roads (once coming across a second world war airfield hidden in the woods, another time finding the stream that began small enough to jump across that eventually became the Thames).

I attended classroom work one day a week for the first six months and learned to use machine tools, welders, etc. I spent the remainder of the week for six months assigned to the development department (jet engine components) for six months, learned about some of the close calls in the early days of jet engines on passenger planes, got to see the development work being done on new materials for turbine blades, got to go underground in a working coal mine in Wales,

I spent a Saturday night singing all the old World War II songs in a pub packed with ex Air Force members and their wives, learned that most homes in England did not have phones in those days so you communicated with your family by a weekly letter,

I spent Christmas with one of the other young engineers in his family home in East London and saw the empty spaces across the street that had been the victim of German bombs.

I found that the way to get into bed on a cold winter night when there was no central heating was to do 20 push ups in a row then jump into bed under a heap of blankets.

For my second year I went to the University of Birmingham to take the Thermodynamics and Related Studies Course. That course also had Athlones Norm Jones and Jean Marie Cote in attendance. While there I became friends with several other Athlones including Ken Serdula from the University of Saskatchewan who you might have known as he worked with Atomic Energy of Canada before he passed away a couple of years ago.

Also at Birmingham that year were Athlones:

- Ken Bailey, from The University of Manitoba,
- John Clarke from U.B.C., and
- Gordon Cooper from the University of Alberta.

Actually, John Clarke, Gordon Cooper and I all began the year on the University of Birmingham basketball team although John dropped out part way through the year to go skiing on the Continent. (John passed away soon after returning to North America). The basketball team eventually won the University Athletic Union Championship for England and represented the Country at an International Tournament in Brussels.

Before we completed our assignments leading to a masters degree in Thermodynamics and Related Studies, a classmate and I decided to export my

Volkswagen Beetle to Europe for one more trip before we became serious about finding employment. The classmate, Tom Komoly, was originally a Hungarian who, after several attempts managed to escape from Hungary at the time the borders had been closed by the communist regime in the 1950's. Tom went to Glasgow to continue his engineering education before following up at Birmingham U at the same degree course in which Athlone Fellows Norm Jones, Jean Marie Cote and I were enrolled and Tom also played on the University basketball team with me and Gordon Cooper. Tom and I began a five week trip by shipping the car from Newcastle to Bergen Norway and then drove to Oslo, Sweden, Denmark, Germany, Switzerland, Austria, Italy, France and back to Birmingham to finish our course work. This time we had a larger tent so we had a great trip and slept in relative comfort on the ground while taking in the sights of most of the capitol cities in Western Europe.

About that time I did not have a job to come back to in Canada when I received a letter from the National Research Council in Halifax asking if I might be interested in becoming the Assistant to the Director at their laboratory on Oxford Street in that city. That position was then filled by 1953 Athlone Fellow John Merritt who had also graduated from Nova Scotia Technical College and had taken the same Thermodynamics Course that I was finishing. I believe that John had married a Scottish girl while he was in England and had landed a Senior Scientific Officer position at the Torry Research Station in Aberdeen, Scotland. I had spent the summer at the National Research Council in Ottawa the summer before coming to England so I was familiar with the organization. I immediately accepted and packed my bags for home. I spent the following two and a half years dividing my time between doing personnel work and planning an expansion to the NRC Halifax laboratory to essentially double the space for scientific research work.

Copyright © 2021 Ben Smith [Used with permission]

Ron Johnston, Athlone 1962, UofA-July 2018

My Athlone Fellowship Story

A part of my story would be how I came to receive the Athlone. I worked hard in my 1st year of engineering at the UofA and slacked off in the next two years. My application for the Athlone was not too strong with my grades from the 3rd year and I was not awarded it. In the fourth year we had a new Prof by the name of Dr. Edward Jull. I was very impressed with him due to his excellent material and clear understanding and presentation of it. He was quite shy in the lectures but that was not a problem for me. He had recently come back from the UK on an Athlone fellowship (awarded abt 1957). I wanted to emulate him if possible. That did eventually happen in a number of ways. A few years after that Ed Jull joined UBC. Ed had followed the example of his older brother George (also an Athlone fellow).

I joined Canadian General Electric in Toronto on a training program (June 1961) and worked on a number of projects in different departments. My favourite was tuning up TV transmitting antennas. My most disliked project was checking to see if some of the manufactured CGE equipment met military specs. During that last project I decided to phone up UofT to apply for the Athlone even though the deadline in the previous years was a couple of months away. I was told that the deadline that year had just gone past. However the Prof in charge told me that if I got my application back in right away he would accept it. I had the interview and I was accepted.

I started at Imperial College with intent to study antennas but IC was not strong in that area.

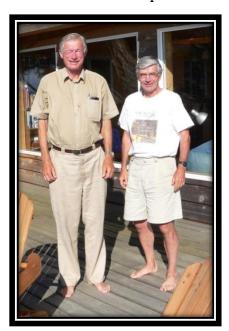
Ed Jull had gone to University College which was very strong in EM and antennas. I joined Professor Boothroyd's group which consisted of about 50% Canadians to study transistor circuits. Prof. Boothroyd then became Dept. Head at Queens University Belfast and 3 Canadians, an Indian, a Thai and a South African grad student all moved to QUB. My research was slow for two years and then I changed topics and right away I started to get good research results.

In the first winter in the UK (1962) I joined an Oxford and Cambridge hockey team to play in Poland and Czechoslovakia. We did not win any games but it was quite the experience to visit inside the Iron Curtain. It felt very good to come out from the Iron Curtain. I learned 5 decades later that Ed had played for a similarly organized hockey team while in the UK.

After graduation, I joined Northern Electric R&D Labs (later Nortel) in the fall of 1967. I had a paper published in the Proc IEEE in Feb 1968. I was surprised to see that Ed Jull had an article in the same issue.

On Jan 1, 1970 I joined the U of Calgary Electrical Engg Department. Fred Trofimenkoff, Gord Hope and Om Malik (all Imperial Grads.) were already in the Department. Towards the end of the academic career I became Dept. Head during which time we roughly doubled the size of the Dept., 22 academics were recruited from July 97 to June 03. We introduced Computer Engineering and Software Engineering BSc degrees at that time.

With more available personal time, my wife and I decided with the help of a long



time Departmental friend (Gunnar Berg) to buy a lot and have a "cabin" built on a Georgia Strait island known as Savary Is. I was told that Ed Jull and his wife had a "cabin" on an island closer to Vancouver than our island. We invited Ed and Anne up to our cabin and after that they returned the invitation and we visited them on North Thormanby Is.

We have been in our cabin for 16 seasons now and enjoy the salt water environment and the opportunity for salmon and prawn fishing. We have usually spent about four months at our cabin every summer since 2003.

Ron Johnson [used with permission.]

Earle Lockerby, Athlone 1964, Nova Scotia Technical College – July 2018

In the fall of 1964 I was in the final year of a Bachelor of Engineering (Chem. Eng.) program at Nova Scotia Technical College (NSTC) in Halifax. This institution later adopted the name Technical University of Nova Scotia, and eventually became part of Dalhousie University. I had previously obtained a B. Sc. (Chemistry) and an Engineering Certificate at Mount Allison University in Sackville, N.B. I had also met my future wife, Heidi Neumann, there. It was in November, 1963 that I learned that I'd been awarded an Athlone Fellowship,

along with two other students from NSTC. I was engaged to Heidi and we decided to get married before my departure for England. Our last two weeks in Canada were busy ones indeed.

We were married on August 29 in Shawinigan, Quebec, and drove to Prince Edward Island on the first leg of our honeymoon. We stayed a few days at a cozy cottage by the sea, making a side trip to Amherst, N.S., where I was best man at the wedding of my university roommate of five years. We took the train from P.E.I. to Quebec and on September 10 caught the Empress of England at Quebec City for our voyage to Great Britain. For the first time we met the other Athlone Fellows of 1964. The transatlantic crossing marked the second leg of our honeymoon.

It was a beautiful sail down the St. Lawrence and all was well until we had gotten through the Strait of Belle Isle and onto the open Atlantic. Throughout much of the crossing, the ship experienced heavy seas churned up by a hurricane. For the first half, I was deathly seasick and for the other half of the crossing, it was Heidi who was sick—our first experience of mutual caregiving! We disembarked at Greenock, Scotland and took a train to London with some other Athlones. We were billeted in a student's residence for several days while we got our bearings, received some orientation, and looked for accommodation. The British Board of Trade was quite helpful with this and within a week we found a flat in Barnes, a suburb of London in the county of Surrey.

By bus, or a combination of bus and underground, it took about 40 minutes to get from our flat in Barnes to Imperial College in South Kensington, where I was enrolled in the Masters program in chemical engineering. This school was considered to be the "MIT of Great Britain." Attending Imperial College required some adjustments from the routine of university attendance in Canada. I found my study program to be much less structured. I had classes but there were few exams and course assignments along the way. I recall that one of my professors was the eminent Kenneth Denbigh. Another was Roger Sargent. One pleasant surprise at Imperial College was the institution's liberal attitude toward alcoholic beverages on campus. The Student Union building had a well-stocked bar and one could spend some pleasant time over a pint with fellow classmates. This was quite a contrast with my university experience in Canada—particularly at Mount Allison University which at that time was affiliated with the United Church of Canada and had strict policies. I developed an appreciation for cider at the "IC Union" and still enjoy the occasional cider!

As far as my research/thesis project was concerned, I was pretty much on my own with not a great deal of guidance. There were few markers by which to gauge how one was doing. This was a little unnerving, but I got used to it. Getting through this successfully was a confidence builder that served me well in later life as I made a career for myself in Canada. No doubt it gave me confidence with regard to other undertakings in life. I was successful in obtaining my Masters degree in about a year. I decided not to go on for a Ph.D. because I did not have the financial resources to spend one or two years at university beyond the two years covered by the Fellowship, even though my wife had a secretarial job. I decided to take a second Masters degree, this time in Operations Research and Management Studies (similar to "industrial engineering" in Canada).

It was exhilarating to be in London at this time. The cultural scene was very youth-centric. Roger Miller's "London Swings Like a Pendulum Do" was a popular song. Carnaby Street was a world fashion leader and "Twiggy" was a popular, internationally known model. The "Mods" (on their motor-scooters) and "Rockers" (on their motorbikes) battled for supremacy in Southern England, including places like Brighton Beach. Heidi and I felt that, in London, we were living at the crossroads of the world. When Winston Churchill died, we attended the street vigil.

On week-ends we took every opportunity to see and experience London—Portobello Road, Kew Gardens, Westminster Abbey, St. Paul's Cathedral, St. James Park, Covent Garden, Hampton Court Palace, Hyde Park, concerts at Albert Hall, Smithfield Meat Market, great museums, stage plays in the theatre district, and the list goes on and on. We enjoyed buying produce at the greengrocer at streets markets such as the one in Hammersmith. The Canadian Embassy and the British Board of Trade were very good at ensuring that the Athlones received formal invitations to various important receptions and functions at places such as Lancaster House—usually providing opportunities to socialize with other Athlones and prominent Brits. A highlight for Heidi and me was attending the Queen's Garden Party at Buckingham Palace. The Canadian Embassy sent out a weekly or monthly newsletter about happenings back in Canada, so that helped to maintain some connection with "home."

Heidi had emigrated with her parents from Germany to Canada in 1952 when she was 11 years old. In 1964 we spent our first European Christmas together by travelling by train (and boat across the English Channel) to Saarbrücken and Stuttgart in Germany to visit some of Heidi's relatives. In the fall of 1965 I purchased a small, well-used car (an Austin A35) from a Canadian who was

leaving London to return home. With increased mobility and with my university endeavours being relatively unstructured and flexible, Heidi and I found the time to do some touring in some beautiful areas of Great Britain—delightful Cornwall and Devon, the lovely Cotswolds, the picturesque Lake District; and in Scotland, Loch Lomond and the Trossachs. [The Trossachs generally refers to an area of wooded glens and braes with quiet lochs, lying to the east of Ben Lomond in the Stirling council area of Scotland. The name is taken from that of a small woodland glen that lies at the centre of the area, but is now generally applied to the wider region. Wikipedia] We also did some touring in Holland during tulip time, and in Belgium and France.

In early 1966 Heidi became pregnant. Since it would be late summer before I would receive my second Masters degree, we decided to stay in London for the birth of our first child. This provided me with time to search for a job in Canada. Being an Athlone Fellow, I'm sure, was a substantial asset in my quest for employment. I received offers from Imperial Oil, Shell Canada and Atomic Energy of Canada (AECL) and actually had an interview in London by an AECL representative who was on other business in England.

Our daughter was born on October 11 and five weeks later we flew to Montreal (no more days of seasickness). We settled in Deep River, Ontario and I began what would turn out to be a 30-year career with AECL. Deep River was the main town site for employees working at AECL's Chalk River Nuclear Laboratories and was reputed to have more people with postgraduate degrees per capita than any other place in Canada. From British Board of Trade publications aimed at Athlone Fellows past and present (including lists of "alumni"), I was able to discover that upon my joining AECL there were at Chalk River somewhere between half a dozen and a dozen Athlones! (I can't remember the exact number). It was in Deep River where our second daughter was born in 1968.

My career with AECL took me to other company locations—Ottawa, Mississauga, Fredericton, and Port Hawkesbury, N.S., and even half a year in Switzerland. I have now been retired for 22 years. As I look back over these many years, I ask how my life and career were influenced by my experience as an Athlone Fellow? On the professional side, this is not a question that I find easy to answer. I have already alluded to my studies in London helping to develop confidence and ability to take on new work-related challenges and to adjust to new circumstances. No doubt it also gave me added ability to adapt to major changes in living conditions as a result of career moves, living in Mississauga being very different from living in Deep River, for example. And,

clearly, having Masters degrees in two different branches of engineering was beneficial to my career and to career advancement.

I find it easier to describe how the experience of living in London and travelling in Great Britain and on the Continent during my Athlone years has influenced my personal life. For one thing, experiencing life in England for a couple of years imparts an understanding of how young a country Canada is. So many British and European institutions, buildings, etc. go back many centuries in time—and not infrequently, more than a thousand years. I firmly believe that living in another country, particularly one that is quite different from that in which one has previously lived, is a great mind-expanding experience. It helps one to gain a perspective, often a worldly perspective, that is generally not acquired by people who don't experience extended periods of residency in another country. Living in England made me a more cultured person and developed in me an appetite for travel.

Canadians who live abroad for a few years gain a much better understanding of Canada than those who never have this experience. Canada is a multi-cultural country, but has strong British roots. I happen to have grown up in part of Canada (P.E.I.) that has strong British roots and my ancestry is largely English, Scottish and Irish. I believe that my two years in England sharpened my understanding of both Canada's British roots and my own roots.

I am very thankful, and consider myself very fortunate, to have had the opportunity to study in England on an Athlone Fellowship.

Copyright © 2018 Earle Lockerby. [used with permission.]

L. Robert Morris, Athlone Fellow 1965, Toronto—July 2018

Meeting the Beatles: "It was 54 years ago today..."

I was there when the Beatles played two shows at Toronto's Maple Leaf Gardens in September 1964—during one of only three visits they ever made to Canada.

In 1957, as a 15-year-old, I had enthusiastically embraced Elvis Presley's music and queued overnight to buy a ticket for his only Maple Leaf Gardens show. Elvis was for real. Elvis was Elvis. But, for me, he was only a tiny vision and a miniature Elvis, to be squinted at from my distant seat location in the "greys." And, I was *not* impressed!

In 1964, as a 22-year-old campus newspaper editor/reporter, I was more excited about the Beatles as a sociological phenomenon than as a pop group, and determined to see their show—to discover first-hand what Beatlemania was all about.

It was during my final year in electrical engineering at the University of Toronto, when I was Editor-in-Chief of the engineers' "humor" newspaper, *Toike Oike* (pronounced Toy-kee Oik). Although I'd already endured an overnight lineup to obtain Beatles' tickets, I decided to try to exploit my editorial position. I repeatedly pleaded my case with Stan Obodiac, Maple Leaf Garden's long-time publicity director, and was eventually rewarded with a pass to the Beatles' press conference. This also allowed me free "standing-room" status at their shows.

Two concerts—afternoon and evening—were presented on Monday, September 7, 1964. It was Labour Day, so there were no classes at the university.

Determined to justify Obodiac's faith in me, I prowled the streets of downtown Toronto for most of Sunday afternoon and evening, and into the early hours of Monday morning, armed with a camera—and in the company of hundreds of thousands of screaming, maniacal Beatle fans. When the Beatles' limos pulled up to the King Edward Hotel at 1:36 a.m., I was perched precariously upon a concrete pedestal at one side of the front entrance, ready to capture their first Toronto appearance. I felt submerged in a scene from *A Hard Day's Night*.

Late Monday afternoon, I flashed my precious press pass to obtain entrance to the hallowed sanctuary of the Gardens for the 4 p.m. show.

The current generation of concert goers must understand that, in 1964, a Beatles "rock concert" consisted solely of the boys on a small stage, singing, with the aid

of relatively modest amplifiers and a few on-stage speakers. No background orchestra or troupe of four-dozen singers and dancers; no giant video screens; no multi-million dollar custom-made stage apparatus with lasers and lights; no million-watt amplifiers, or arrays of dozens of giant speakers; no elaborate control console operated by a small army.

It was quite amazing that the Beatles could be heard at all, amidst the incessant shouts and screams. It was also a miracle that they could see: thousands of old-fashioned, magnesium flash bulbs incessantly ignited throughout their two concerts.

When the Beatles eventually stopped touring, "not being heard" was their main complaint. They contended that they could have been silently mouthing the words, and no-one would have noticed.

Following the first show, the Beatles were hustled on-stage in the huge MLG amphitheatre, and seated behind a long table. Facing about 150 reporters and photographers, and thousands of security guards, they dutifully answered all and any questions.

By September 1964, the Beatles had been exposed to North American television viewers only a few times. Although there was blanket newspaper coverage, it was really reporting about Beatlemania – not the Beatles – which emanated from a not-too-clued-in Canadian press corps, largely of the older generation. Reporters had little interest or knowledge of the Beatles either as people or as musicians. Wearing Beatle wigs, playing Beatle tunes, and speaking Beatle speak was where Toronto disc jockeys were in the summer of '64.

Certainly, the idea that Lennon and McCartney were soon to be regarded as the greatest pop composers and lyricists of the century was nowhere in sight. This was reflected (in retrospect) by the sole question I posed during the press conference, directed to both John Lennon and Paul McCartney: "Who writes the words and who writes the music?" The answer, as the whole world was soon going to find out, was shouted simultaneously by John and Paul: "We both do!"

Then, the Beatles posed behind Ringo's drum kit, and commenced an on-stage, informal photo-opportunity. Paul—then the darling of the press—was introduced to a very blond Miss Canada, with George and Ringo at his side.

John Lennon was standing at center stage, approached by absolutely no one, and doing absolutely nothing.

I had bought a copy of his just-released book *In His Own Write*, then available in Canada but in not the U.S., hoping that such a situation would arise. I approached him, slipped it out of my jacket pocket, and asked if he would autograph it. "Later," he replied.

I moved a few feet away, and soon realized that there would be no "later." I retraced my steps and engaged him one-on-one in a long-forgotten five-minute conversation.

I still retain a vivid impression of Lennon's overall presence, however. His hair was quite reddish, rather than brown. And his eyes sparkled absolutely brilliantly. He seemed quite the mischievous pixie, and a very clever boy.

I hauled out the book, and again asked for an autograph. John was on the verge of again saying "No" when their road manager, Derek Taylor, approached and quietly handed me a small square of paper. It bore all of the Beatles' autographs, each in a different ink. I suspect that Taylor wanted to avoid an on-stage autograph stampede.

The second concert basically duplicated the first. However, two Beatles' concerts and a Beatles' press conference in a single day was one amazing experience!

My report for the *Toike*, in retrospect, seems reasonably prescient. But then, I'm hardly an unbiased observer.

What stands out in my memory is that the Beatles of '64, though not yet the true musical geniuses they were by the summer of '67, could reproduce on stage a bang-on facsimile of their early recordings. Their later pioneering studio work—aided by the remarkable brilliance and expertise of George Martin—would make that totally impossible. One more reason why the Beatles eventually decided to give up concert tours.

The Beatles at MLG piece played a large role in my being awarded an Athlone Fellowship to do graduate studies in England, 1965-68, since my page-long review highlighted our premiere issue. The newspaper's impact on my main reference Prof. James M. Ham—soon to be the first engineer elected as President of the University of Toronto—was crucial.

No Beatles, probably no Athlone Fellowship, and no university career.

In England, it proved impossible to escape the Beatles' influence. Picking up pristine "superb-quality" *Rubber Soul, Revolver*, and *Sgt. Pepper* LPs on their first

day of issue was amazing. (Canadian LPs were trash!) And the day that the *Evening Standard* published a John Lennon interview claiming that the "Beatles are more important than Jesus," I read it on my "tube" (subway) trip home. Bonfires of Beatles' records in the southern U.S. quickly ensued.

The date that I watched the world-premiere of *The Magical Mystery* Tour on BBC television is vividly engraved into my memory: Boxing Day, 1967. The next morning, *TMMT* was savaged in the British press—and that evening, December 27, my first son, David, was born.

Finally, I almost never watched *Monday Night Football*. But on December 8, 1980, for some strange reason, I tuned in to the last 10 minutes—preceding the eleven o'clock CBC News—only to hear the announcement that John had just been murdered. For me, who had occupied a few minutes of his life, it really was "the day the music died": the Beatles were gone.



Sept. 7, 1964. Left: Paul McCartney cavorts with Miss Canada. Right: John Lennon fends off an autograph request from author. (Photos: Bob Morris)

Below, left: Outside the King Edward Hotel, 1:34 am, Sept. 7, 1964. John Lennon and "escorts."

Thousands were in the streets! (Photo: Bob Morris)







So, the Beatles were a crucial component of the CV that led to my Athlone.

At Imperial College, I never intended to get a PhD. However, my supervisor, Professor E. Colin Cherry, believed in tossing you into the lion's den of his research lab, together with many British-trained grads—who were better-prepared for that "sink or swim" philosophy. Cherry was an "engineer-philosopher," later winning the Marconi Prize, a "communications Nobel." A mature lab chum indoctrinated me into the Royal Opera House, Covent Garden, and its protocol of overnight queuing for inexpensive opera and ballet tickets: asleep on the sidewalk, with huge, vegetable-laden lorries barrelling by. I suspect that I spent more time at the ROH, the National Theatre at the Old Vic, and the West End, than at Imperial College!

My Imperial PhD led to professor at Carleton University, Ottawa; meeting my wife Joanne; with two sons, three grandsons and a granddaughter to follow. For 28 years, I did research in speech signal processing and, later, digital signal processing microprocessors.

In 1979, I co-authored a best-selling university text on PDP-11 minicomputer systems, and, in 1983, a pioneering seminar-orientated manual on digital signal processing (DSP) microcomputers (TI-TMS320). However, those books eventually vanished into obsolescence.

I'd always been a film fan, and circa 1979 I reconnected with the designer, architect and world-traveller who'd been chief illustrator for my 1964/65 newspaper. Though we had both seen the David Lean 70 mm masterpiece Lawrence of Arabia in Toronto in 1963, he had adventurously lived in Arabia while I had quietly studied in London. After we viewed the newly restored version, in 70 mm, in Toronto in 1989, it occurred to us that there were dozens of books on classics like Gone with the Wind, Casablanca, and The Wizard of Oz, but none on Lawrence. We contacted the film's restoration wizard, Robert A. Harris, and somehow convinced him to support two Canadian rank amateurs on a history book about what many—especially Steven Spielberg—argued was the greatest film ever made! In retrospect it was total insanity, but, to quote the film, in three years "our miracle was accomplished."

We interviewed most major cast/crew on the film, including: Anne V. Coates, film editor (Oscar for *LOA*); Phyllis Dalton, costume designer (two Oscars); Robert Bolt, screenwriter (two Oscars); Maurice Jarre, composer (Oscar for *LOA*, plus two others); Freddie Young, cinematographer (Oscar for *LOA*, plus two);

John Box, production designer (Oscar for *LOA*, plus three); and Omar Sharif. And many more. *Peter O'Toole, famously, granted no interviews*.

Sir David Lean passed months before we were to interview him, but his widow invited us to a memorial service at St. Paul's Cathedral, in October, 1999—where there had been a memorial service to TE Lawrence in 1935. Maurice Jarre conducted a small orchestra, and actors and crew from Lean's films gave readings. After, a reception followed at Lean's Thames-side, east-London mansion, with dozens of cast and crew associated with Lean's films attending.

Our book was published in the US and Canada, by Doubleday, in October 1992. In 1935, they were the American publishers of T.E. Lawrence's masterpiece "Seven Pillars of Wisdom."

Only the time flexibility granted to a professor allowed our project to be realized, and, again, the Athlone made that free time possible. In a pre-internet, pre-Amazon, era, the book was a best-seller only among the film community and film fans. Photos—and rights to photos and images—ate up our modest advance. However, it was a labour of love which will never become obsolete, about a film which will never be forgotten—or surpassed.

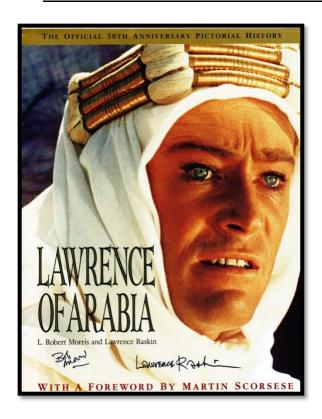
Of course, none of our grand-kids, aged 10 to 17, have seen LOA! Yet.

Other adventures included flying to London, with Joanne, on Concorde, to give a DSP microprocessor seminar (1984), and returning on the QE2, with a glass-like Atlantic all the way. *In contrast to the Franconia "sea-sickness disaster" of 1965!* And in 1971, I used my "professor status" to obtain a VIP pass to the launch of Apollo 15. *Viewed from 4 miles away, astonishing!*

My other long-time obsession is chasing total eclipses of the Sun. In July of 1963, three UofT engineers travelled to Grand-Mère, Quebec, for 60 seconds of "darkness at noon." Then Greece in 1966, Virginia in 1970, and, with Joanne, Aruba in 1998. I've written several essays on total solar eclipses in history, published in Ottawa's *Citizen's Weekly* and in *Sky & Telescope*.

In 2016, the appearance of a book on the *Beatles in Canada* prompted me to Google images of "Beatles Toronto 1964." I found this: http://magazine.utoronto.ca/all-about-alumni/i-saw-him-standing-there-robert-morris-beatles-john-lennon-toike-oike/

And was so unbelieving that I had to ask Joanne to confirm that it was me!





In 2016, I "discovered" an image on-line, above right, of a 1935 painting of "TE Lawrence as RAF Aircraftman Shaw," by British artist Augustus John, which was "whereabouts unknown." The Grundy Gallery, in Blackpool, England, had acquired the painting in 1939, but had not published *any* image until it went on-line circa 2014. *Again, Google came to the rescue*. The portrait resembled a 1934 "John/Lawrence" I'd seen many times in Ottawa's National Gallery. The verbal description of "1935" in a limited-edition art book by a friend was the key to this discovery. My essay on "1935" was printed in *The Journal of the TE Lawrence Society* (2016).

My Athlone was thus a gateway to many adventures—but my wife Joanne, three sons, and four grandchildren were the most important "results" made possible by my research at Imperial College! When my granddaughter Abigail read that Imperial was ranked 2nd best in the world in the 2014/15 QS university rankings, she exclaimed "Better than Harvard!?" Yes!

Copyright © 2016, 2018 L. Robert Morris All Rights Reserved [used with permission.]

Dwight Aplevich, Athlone 1964, USask-August 2018

The summer of '66

I'd like to add my belated observations on the Athlone Fellowships and all they entailed. I was one of approximately 40 young, cocky Canadians who debarked at Liverpool from the Empress of England in September 1964 after six long days and nights aboard, in which we had experienced force 9 gales. Two of our contingent were already in England.

After the efficient welcome by the Board of Trade we headed to our destinations, some of us to Imperial College. We were informed that the term did not begin until mid-October, so to celebrate our arrival in England, several of us took a plane to Paris. We spent a hilarious few days there, partly because two of the group were from Quebec and language was not a problem. Returning to London to begin my program in communications and electronics, I experienced the British hands-off style of research supervision by being told to carefully read and reflect until I could formulate a thesis topic, about six months after which I should be finished. Not long afterward, my supervisor decamped to Africa for an extended stay. As it turned out, this supervision style suited my temperament and his predictions came almost true although I attended several post-graduate lecture series that were needed for my project, and writing the thesis took longer than predicted. The camaraderie among fellow students who greatly assisted each other, the continuous stream of distinguished visitors who gave talks, the top-notch lecturing, the atmosphere of searching for excellence, and even the discussions over morning coffee and afternoon tea, which were attended by much of the department, made a lasting impression on us all.

Living in London was special. The concerts, the theatres, what Time Magazine called "Swinging London," Carnaby Street and the King's Road, the Beatles, the pubs, and the football matches combined to produce an intense experience. Moreover, I had a car and, in the summer of 1966, it became my hobby to act as a tourist guide. Visitors, primarily from North America but also many from the British Isles would be given a brochure by their hotel porter. "Be shown around London by a young English gentleman," it read, "a student from Oxford or Cambridge reading the arts, letters, or the law." The lab telephone would ring and I would be told to pick up the Jones family from Michigan and take them on a three-hour tour of London or, perhaps, Windsor, Oxford, or an evening pub crawl. In those days you could park right next to Saint Paul's or in Parliament Square, for example, and one learned which traffic lane to take and to drop the passengers off briefly at Buckingham Palace at precisely 11:15 when the Guard

marched out. On those occasions when members of the Royal Family were spotted, you could say "I didn't want to promise this, but there is Princess Margaret driving away ..." London was in ferment that summer because of the soccer World Cup, which the Germans remember as having a disallowed goal in the final and the English remember as winners. This was life at its fullest, but the day came when distractions had to be given their proper priorities with respect to writing a thesis.

These happenings all occurred because of the Athlone Fellowships, a unique program that provided excellent education and unforgettable experience, the demise of which we all regret. I share the sentiments of others who cherish the memories of their experiences of British people and places. Mine lasted from 1964 to early 1968 when I left London for a year in Chicago (the Vietnam War, the Democratic National Convention, the moon landing) before returning to Canada where, I thought, I would be working in industry. My retirement, many years later, was from the University of Waterloo, but that is another story.

Dwight Aplevich [used with permission.]

Rod Desborough, Athlone 1965, NSTC/TUNS/DALTECH—December 2018 Rod Desborough's Athlone Story

Background

- Canadian University: Mount Allison University for pre-engineering and NSTC (TUNS and now DalTech as the Dalhousie Engineering School)
- Engineering Discipline, year of Graduation: Bachelor of Engineering, Honours Mechanical, 1964
- Athlone School, year of Graduation: Imperial College, Master of Science, Thermal Power and Process Engineering, Mechanical Department, 1966
- Position on retirement: Chief Project Manager, Refining Projects,
 Americas, ExxonMobil Research and Engineering, Fairfax, Virginia, USA

What the Athlone Fellowship meant to me

I hadn't given much thought until recently when I was asked by Bob Hemmings to write a few words regarding what the Athlone Fellowship meant to me and my life after the two years in the UK.

Initially I thought this would be a very few words but the more I reflected on that time decades ago, the more I came to realize there was lots to write about so here goes.

Working in the Heat Transfer Lab at Imperial College surrounded by some of the best mechanical engineering minds, both staff and fellow grad students, probably in the world, including grad students from Russia who were attracted by Dr. Spaulding's work and writing, was an incredible experience.

For my second year of the Fellowship I had made arrangements through Imperial Oil, my Canadian employer when I was awarded the Fellowship, to spend that second year at Esso Petroleum's Fawley Refinery which at that time was one of the largest in the world. My Division Manager at Imperial Oil was a personal friend and work associate of a Director of Esso Petroleum whom he contacted on my behalf and helped obtain my placement at Fawley. I had worked for Imperial Oil for about 15 months before leaving for the UK and during that time realized that in an Oil Company the excitement was all about Chemical Engineering that also aligned well with my academic interests in thermodynamics and heat transfer. This led to my Degree in Thermal Power and Process Engineering.

The second year built on the academic year by enrollment in a Chemical Engineering course at the Refinery and then being assigned to the Technical Department to prepare design specifications for new process facilities.

On return to Canada I re-joined Imperial Oil in Sarnia and continued as a design engineer for Process Facilities and so a direct application of my Athlone education and experience.

My career had a focus for several years on facilities planning, design, detailed engineering, start up and operations but eventually moving to management of large capital projects for Imperial Oil and later ExxonMobil. I now realize that Fellowship experience really was significant although I didn't realize it at the time.

A work process in ExxonMobil, as well as other organizations, are peer reviews of projects at key stages of development. In ExxonMobil Research and Engineering I helped develop the peer review processes which at the time we called Cold Eyes Reviews. My last position prior to retirement was on loan assignment from Imperial Oil to ExxonMobil Research and Engineering as Chief Project Manager for ExxonMobil's refining projects in the Americas that required

oversight of work processes including leadership for Cold Eye Reviews. These reviews are completed at the major milestones of project development including early feasibility and facilities planning phases. During my participation in these early project stage reviews I was able to understand and contribute to the Chemical Engineering aspects of these phases of a project. I attribute that understanding in large measure to my earlier Fellowship education and industrial experience.

The opportunity to spend a year in London and a year at Langley near Fawley and the New Forrest is something my wife and I consider as priceless. The adventure of sailing on the Cunard Liner Franconia from Montreal to Southampton with our fellow engineers was unforgettable in many regards including cheap beer going down the St Lawrence and sea sickness the day following. The viewing of our living accommodation options in London, as provided by the British Council, was a shock. Fortunately, we were, with the help of a previous year Athlone, Earle Lockerby, able to find a very acceptable bed sitter with a shared bathroom and fridge. Although we had moved from a two-bedroom townhouse in Sarnia with our newly purchased furniture and appliances, we discovered that the opportunity to live in London more than made up for the change in accommodations. We took advantage of being in London including the theatre and all the historic sites and Museums. The landlord for our bedsitter was the Queen Mother's Master of Ceremonies, or "announcer" for lack of a better term. He was the person that called out the names of the guests as they proceeded along the receiving line for the Queen Mother. As a result, we had some first hand in sight to the Royal Family. Attending the Garden Party at Buckingham Palace also gave us an additional perspective My wife's own work experiences in London, as a nurse and helping in the kitchen in the Innholders Guildhall in the Old City were truly unforgettable and will always be treasured.

We did without a car while in London but purchased a used Austin Cambridge for the second year which was in turn sold to an incoming Athlone at Fawley. The car enabled us to explore the UK and Scotland. We traveled as often and as far afield as we could afford, and had family and friends visit. Most important of all our first son, Lane, was born in Southampton.

We grew to love the UK and have returned several times and still think it is just great. The Fellowship Program was well "engineered" and executed with discipline, a well-oiled machine as I recall. It is unfortunate that today's graduates don't have the same opportunity to get a real feel for a country and

what it has to offer whether culturally, academically or in business. Young folks today do travel much more so than when I graduated but travelling on a vacation doesn't quite give you the same exposure as living, studying and working in another country for a year or so. I believe there is a missing opportunity, a "gap" in learning, for Canadian undergraduate engineers since there is nothing that replicates the Athlone Fellowships.

Rod Desborough [used with permission.]

Mike Campbell, Athlone 1957, Nova Scotia Tech-December 2018

I don't have a lot unique to say about the Athlone. I guess my first memory is: what a surprise that I qualified. My Chem. Eng. Prof. Dr.Foran at Nova Scotia Tech insisted that he wanted one of his boys to apply. When I saw the slate of candidates, I thought there is no way they will pick me. However, the Chairman of the panel was on the Board of Dosco and interested in my knowledge of the steel industry. No one else got a word in at the interview.

My time in London was wonderful. Academically it was rather so-so, but culturally it was incredible. I played hockey for Cambridge with Ian Gartshore and Ed Jull (both Athlones), in spite of the fact that we were at the University of London (Royal School of Mines for me). Then I met Annabel, cousin of Robin Fancott another Athlone. We've been married for 58 years and remain best friends and wouldn't change our lives for anything.

My career started in Sydney at Dosco, then to Ottawa with a startup metallurgical research company. I became Manager of a spin-off manufacturing company. The U.K. got a good return on their investment. When I was building facilities for the company, I sourced most of our heavy equipment in the U.K. Parting company with this group, I joined Energy Mines and Resources and spent 23 years mainly in Research Management. Finally, I spent 4 years with an international lobby group for the mining industry. I retired in 1999 and live in Manotick, a suburb of Ottawa.

Interestingly, my brother Frank followed me 10 years later as an Athlone.

Mike Campbell (NSTC 1957) [used with permission.]

Don Shields, Athlone 1955, USask-June 2020

My Athlone Days—[used with permission] In early 1955 while I was completing my final year at the University of Saskatchewan, I was interviewed by the Athlone Fellowship selection team which was travelling from engineering school to engineering school across Canada. Athlone Fellowships started in 1950 and were designed to bring to Great Britain every year thirty-eight Canadian graduates in engineering for post-graduate studies and/or practical, on-the-job training. The Fellowships had a duration of two years and were tenable in industry, in universities, or partly in each of these. During the interview, I was asked what field of engineering would I like to pursue in England if were to be chosen to be a Fellow. I replied: "Soil Mechanics." When asked in a follow-up question where I would like to study, I sought guidance from the selection committee. The recommendation was to go to Imperial College in London.

I was chosen as one of the two Athlone Fellows from Saskatchewan that year. A Civil Engineering Department classmate, Peter Langeman, was the other Fellow. [Peter went on to obtain a DIC in structural engineering.] We found ourselves in London, England, in early September 1955, having crossed the Atlantic on the Empress of Australia with about half the Athlone Fellowship contingent. All Fellows grouped together in London for a week of orientation lectures on the British way of life. Orientation included visits to the august premises of the three major engineering institutions in London: the Institution of Civil Engineers at 1 Great George Street, the Institution of Mechanical Engineers, 1 Birdcage Walk, and the Institution of Electrical Engineers, Broad Sanctuary. Our arrivals were timed to be late in the day, and always corresponded with cocktail hour it seemed to us. Institutional members were on hand to greet us. We met knights of the realm and others who represented major corporations.

[One memorable exchange was between a knight and a fellow Fellow—Henry—at one of the institutions. When our Henry was introduced to Sir Henry, he said "Pleased to meet you Henry. My name is Henry too." While somewhat taken aback, Sir Henry warmed to our Henry and they palled together for the rest of the evening.]

These relaxed evenings in chandeliered drawing rooms, being served finger food and drinks by white gloved waiters, and hobnobbing with senior engineers with ripe British accents caused the 21 year old from Kamsack, Saskatchewan, (me) to pause now and then to ask himself: How did I get here? How do I deserve being this fortunate?

At the end of orientation week, Fellows went their individual ways, although the majority stayed in London itself. The London contingent included Peter and me. We had both opted to spend one year at university, followed by a second year in industry—the program that the Commonwealth Office, which funded the fellowships, preferred.

Many of the Athlone Fellows were given 'digs' in London House, a large student residential establishment. Peter and I were not among the chosen ones; we had to find our own digs. We ended up with board and room in Notting Hill. We swore—Peter and me—that among the many ways our landlord could cut costs, our landlord could cut a roast into slices so thin that we could see the pattern on the plate through a slice. Most evenings, we went to Wimpey Bar or other fast food restaurant after the evening meal. This would not do. We placed an ad in an evening newspaper, and we ended up as boarders—just the two of us—in a home in Wandsworth. Our hosts were a retired couple. They soon accepted the two of us as replacements for their sons who had left home. We were part of the family. What a change from Notting Hill. The only downside was that whereas we could walk through Hyde Park to Imperial College in South Kensington from Notting Hill, in Wandsworth we were miles from 'College'. This dilemma was soon resolved by Peter and I buying two identical BSA motorcycles. It was then that we really had to remember to stay on the left of the road.

At the start of the fall term at Imperial College, I became a graduate student in the Civil Engineering Department majoring in soil mechanics. Two other Canadian Athlone Fellows who would go on to make their mark in Geotechnical Engineering in Canada were in my group. They were Larry Soderman and Ken Peaker.

Professor Alex Skempton, 41 years old at the time, was Professor of Soil Mechanics. Skempton had initiated courses in soil mechanics at Imperial College in 1945. He was ably assisted by Alan Bishop who had studied under Skempton, and had earned a Ph.D. three years before, in 1952. Bishop was 35 years old, and was gaining recognition for his method of slope stability analysis which had been published the year (1955) I arrived. The soil mechanics laboratory was managed by D.J. Henkel, who would write the definitive book on triaxial testing with Bishop in 1957.

As a graduate student working towards a Diploma of Imperial College (DIC), I took the final year, undergraduate course in soil mechanics. Skempton was the lecturer. Skempton would pace back and forth on the raised podium (at times puffing on a pipe) offering us an insight into the world of soil mechanics and

foundations. It was years later that I discovered that most of his lecture material was from the 1948 textbook <u>Soil Mechanics in Engineering Practice</u> by Terzaghi and Peck.

A Canadian who was nearing completion of his Masters Degree studies at Imperial College in my time there was John Seychuk. John would go on to be an early partner in Golder and Associates.

Other students I met at Imperial College included Fred Delory, who was finishing a Ph.D. He would go on to be a Professor in the Civil Engineering Department at the University of Toronto. Cameron Kenny was completing a Master of Science Degree in Engineering, specializing in soil mechanics. Cam would go on to earn a Ph.D. at the Norwegian Geotechnical Institute (NGI), and to Chair the Department of Civil Engineering at the University of Toronto.

Larry Soderman's family roots were in Sweden. He and I decided to visit relatives of his there in April 1956. The short trip would end in Oslo, Norway, at the Norwegian Geotechnical Institute. It was at the Institute that we would meet Laurits Bjerrum for the first time. Bjerrum was the founding Director of NGI. Although only five years old, NGI had already made a mark in géotechnique. Bjerrum and Skempton were friends and colleagues. This meant that we got to see Bjerrum later at Imperial College.

[A short anecdote: Larry and I arrived in Gothenburg, Sweden by boat from England. We set out immediately on my motorcycle to drive to Grums, 225 kms away. Most of the road was unpaved. I had been unwell that morning, and after 60 kms I was so sick that I could drive no further. I told Larry that he would have to be 'pilot'. It was then that Larry told me "Don, I never had a bicycle as a child, let alone a motorcycle." It seemed we had little choice, so, gamely, Larry took on the task. After a number of wobbles, Larry seemed to have gained confidence and skill. Trouble arrived within a few kilometres; we caught up with a road grader. The grader was in the middle of the road smoothing the gravel surface but leaving a winrow of gravel in its wake. The line of heaped gravel was about 12 inches high. Wouldn't you know it, but Larry drove us straight into the loose gravel. The motorcycle stopped abruptly, and Larry and I went over the handlebars. Luckily, Larry was wearing the one helmet that we had between us. He landed on his head safely, and I landed on Larry. Sick as I was, my faith in Larry was extinguished, and I took over the driving.]

After completing my one year of studies to gain a DIC, I started work at Scott and Wilson, Kirpatrick and Partners, Consulting Engineers in Westminster,

London. The firm had an international reputation, even though all four founding partners were dead. As a trainee, I worked on testing the fill that had been used to build the then new Hong Kong Airport. The runway jutted out into the harbour, and some of the side slopes were failing. Pipe samples, from a drilling program to investigate why the failures were occurring, were shipped in the hold of BA planes from Hong Kong to London for testing. It was obvious from the completely disturbed state of most of the specimens that they had frozen en route—and were useless. We were able to compression tests on a few, seemingly undisturbed specimens. Since I was a lowly lab technician, I was not part of the discussions that led to the resolution of the problem. The runway was completed and lasted many years. Hundreds of thousands of travellers experienced 747 flights that made banking turns within meters of the balconies of apartment buildings in order to line up with the runway. I was on a number of these flights much later in my life, and in addition to the nervousness caused by the steep descending turn, I would think about runway embankment failures.

I also helped senior SWKP engineers decide what the side slopes should be for a new dam in Africa based on the new Bishop method of slices analyses. This was the era before computers, and hundreds of possible failure circles had to be considered, all calculations being performed on a mechanical calculating machine. The dam site was in a narrow valley. We had no way to take into account three dimensional effects on the slope stability calculations. In the end, two senior engineers based their recommendations on construction slopes using judgement. They arbitrarily increased the safe slope angles that I had calculated using two-dimensional analyses. A lesson in practical engineering that I never forgot. A lesson that came to mind in the late 1970s when I was responsible for the pit slope angle at a proposed coal mine in Sumatra.

Another task that I was given at Scott and Wilson, Kirkpatrick and Partners became the famous straw that broke the camel's back. For many hours I was asked to turn the crank on a hand-cranked vacuum pump which was being used to carry out specific gravity (now 'relative density') tests on soil specimens. Why the firm had not bought modern electric-motor-driven vacuum pumps I do not know.

In November 1956, I cut my Fellowship short, and returned to Canada. In addition to being fed up working as a technician and calculating machine during my work term in London, I was in love. In January 1957, I joined Ripley and Associates in Vancouver.

In November 1955, each Athlone Fellow received a letter from the British Council alerting us to educational programs that the Council was offering foreign students over the Christmas break. My roommate Peter Langeman, my classmate Ken Peaker, and I reviewed what was on offer. [We suspected, rightly or wrongly, that the British Council wanted to keep us foreigners from raping and pillaging over the holiday by keeping us busy.] We chose the program that was furthest from London—a week in the Trossachs north of Glasgow, Scotland. We would learn about reforestation practices.

We rented a Ford Zephyr, the Lincoln of the Ford line. The three of us took turns driving all night, and we arrived at the Covenator's Inn in Aberfoyle the next afternoon. There were about 20 students milling about the common area. They were from India, Pakistan, Africa and Europe—already checked in and getting to know each other. A young woman caught my eye. She was in a green woolen dress, standing in front of a log fire in the huge fireplace in the entrance hall of this baronial hotel.

Our program was not onerous, lectures in the morning and bus trips to distilleries and tourist sites in the afternoon. We had lots of time to get to know one another, eating and drinking together in the Wee Noggin. It turned out that the woman in the green dress was from Chicago. She was at the University of Exeter on a United Nations Scholarship. Our Zephyr held four, and Carol Warner came with us—our American sister—on our private excursions out and about. Carol became my wife a year and a half later. *And I give credit to the Athlone Fellowship for bringing us together!*

And, the last Aberfoyle story: We three Canadians were all curlers. By asking about, we learned that the local laird—a Director of one of the shipbuilding firms in Glasgow—had a pond which normally froze over in winter. Curling tournaments were held on the pond. So, we went to see the laird one morning. He lived in a large manor house, up a long drive. A butler answered the door. We asked to see the owner. He and his wife were having coffee in a sunroom, where they welcomed us. On stating our wish to challenge local folk to a curling game, the laird explained that since his pond was not frozen, he would have to call on colleagues at the Stirling Curling Club. A phone call arranged a day and time, and a fourth for us since we were only three. The match got underway after introductions all round. A club rule, we were told, was that during each end one of the four on each team would pair off to the bar after throwing their rocks. This

meant that once every four ends it was your turn to hurry off, down a whiskey, and hurry back to sweep. After eight ends and two whiskeys, the Canadians plus one were winning. However, by the end of 12 ends and three whiskeys, the Canadians were hopelessly outclassed. It was all great fun, and we swore undying fellowship as we parted.

Don Shields: the Athlone and my Career, June 2020

I would not have had the career that I did without the Fellowship. In my 4th year civil engineering at the U of Sask, each student had to present a final year thesis. I was struggling to find a topic when a classmate came to me and said "Don, I need someone to work with me on a project for a thesis. Would you join me?" I agreed. The geotechnical engineering prof Benjamin Torchinsky [myhero.com/B_Torchinsky_ul] was our mentor. He wanted us to study expansive clays in Regina, clays which were causing havoc with building foundations as they wetted and dried with the seasons. Peter Granger and I won the Canadian Construction Association Prize that year.

This serendipitous request by a fellow student, led me to study Geotechnical Engineering at Imperial College that same year—1955—when I received the Athlone Award. There I was introduced to the relatively new discipline of Soil Mechanics under the aegis of Alex Skempton [en.wikipedia.org/wiki/Alec_Skempton] who was knighted at the end of his life. I am now of the age (85) now that I categorize myself as a 2nd wave geotechnical engineer. Skempton was 1st wave.

The D.I.C. was seen to be the equivalent of a Master's degree in Canada, so my DIC opened doors to jobs when I returned home. Of equal value, were the personal contacts. It was at Imperial that I met Larry Soderman and Ken Peaker [Google: CGS Larry Soderman and CGS Ken Peaker]. They were both intertwined with me in my subsequent career, and were essential elements.

Geotechnical engineering was my life. And I enjoyed every minute of my career. My relationships with other geotechnical engineers from around the world were always open and supportive. For 30 years, I had a working relationship with the French Highways Administration—always to our mutual benefit.

Enough said. Don—[used with permission]

Recent Letters from Athlone Fellows in the Imperial College Newsletter

These letters were included in a recent Edition of the Imperial College Newsletter, called "Imperial", Issue 41 (Winter 2016/17), Page 3.

Gerald Crawford, PhD, Metallurgy 1960

I am so impressed by the expansion of Imperial (Imperial 40). I feel compelled to share with you recollections as it was when I was there more than half a century ago. Both the size of the campus and its academic scope at the time seem dwarfed by comparison with the numerous locations and activities of the College now, and yet it was just as much at the forefront of scientific education and engineering development then as it is today.

I was a lucky recipient of an 'Athlone Fellowship', awarded by the British Board of Trade to new Canadian engineering graduates. Our contingent sailed in September 1956 from Quebec City to Southampton, and I was billeted at London House, in Bloomsbury, and later rented a house in Kensington with five others, at a cost of 14 guineas between us.

We each had to shop once in five weeks, mostly at Sainsbury's. The little old ladies who were in there every day for their egg and rasher of bacon, were astonished when the 'Americans' ordered two dozen eggs, two pounds of 'tom-eh-toes', please yes sir two pounds of 'tom-aa-toes', and so it went. every week.

In the evening, some of us would wander over to the Ennismore Arms for a pint before closing time. My favourite was Watneys Red Barrel. It cost 'one and eleven pence ha'penny', all of about ten pence today. I cherish my memories of the 1950s—it was a great time to be a student in London.

Bob Morris, DIC, PhD Electrical Engineering, 1970

I have to admit that when I received an Athlone, I had never been east of Montreal. However, my father was born in England, and studying in England for me meant studying in London. Though I had never heard of Imperial, it was Imperial by default.

London 1965-70 proved to be the world Centre of the cultural universe. I spent almost as much time at the Royal Opera House, the National Theatre at the Old Vic, and at west end theatres, as I did at Imperial! And buying Rubber Soul, Revolver, and Sgt. Pepper on their first days of issue was incredible.

Athlones promulgated the 'legend' of Imperial College London in Canada over the years—amazingly, Imperial welcomed 303 Athlones in 18 years, far more than any other UK university.

Jolly Good Fellows

(In the Imperial College Newsletter of Spring 2018, pages 20-23, compiled by William Ham Bevin, copied with permission)

Or: How the Athlone Fellowship transformed the lives of a generation of Canadian engineers.

"I said I'd waterski on the Thames. Everyone laughed. I had no idea how funny it was until I got to London and saw the river..."

When recalling the interview for the Athlone Fellowship that brought him to Imperial College London from Winnipeg in Canada, *Neil MacKenzie* (MSc Mechanical Engineering 1967) credits an unintended joke with sealing the deal. He says: "I was asked, 'What would you do if you went to London?' I said, 'I'm going to waterski on the Thames.' Everyone started to laugh. I had no idea how funny it was until I got to London and saw what the river was like."

MacKenzie was one of 810 Canadian graduates to take part in the programme, aimed at bringing the country's most talented young engineers to the UK for further training. Named in honour of the Earl of Athlone, Canada's Governor General from 1940 to 1946, it was first mooted by Harold Wilson in 1949 to encourage trade and exchange expertise between the two nations.

The first cohort of Athlone Fellows was selected in 1951. Successful applicants had their passage to England funded, plus their tuition fees, and received a yearly travel grant within the UK, a textbook allowance and a modest weekly stipend (initially £6 10s – the equivalent of around £190 in 2018). They could choose to spend two years – or a single year in some cases – on a university research programme, an industrial secondment or a mixture of the two. The academic route proved most popular. By 1970, when the scheme was wound up, 754 fellows had spent all or part of their time at a British university. Imperial was by far the most sought-after destination, taking a total of 304.

The successful candidates were warned that they would experience culture shock when they arrived in Britain—"especially those, like me, who were living on the western side of the Rocky Mountains and had hardly been anywhere else," says *Gary Elfstrom* (PhD Aeronautics 1971). He adds: "They didn't just pick the highest-marked students as Athlone Fellows, because they might not cope with cultural differences. They were looking for more rounded applicants."

For *Bob Hemmings* (PhD Chemical Engineering & Chemical Technology 1965), one of the first new experiences was the unfamiliar (and unwelcome) smell of kippers at Nutford House, where new fellows were temporarily billeted. A greater surprise was the extent of war damage still in evidence in 1962. He says: "Many areas of London had bomb-damaged ruins—blocks and blocks of devastation. It became more personal to me when I attended Remembrance Day at the Cenotaph. The war was still an open wound."

Ian Rowe (PhD Electrical Engineering 1967) says: "Being married with young children, the culture shock was felt by my whole family. We had to find out that you used markets, not supermarkets, for groceries if you wanted value. We had to work out the health system and the language: if someone said, 'I'll knock you up at 7am tomorrow', it didn't mean they were going to bang me in the belly."

Dealing with pre-decimal currency presented another challenge. *Spruce Riordon* (PhD Electrical Engineering 1967), who was six years into his career as a radar engineer when he applied in 1963, says: "They still had pounds, shillings and pence. If I had a substantial calculation to do, I'd switch back to Canadian dollars, work it out and convert back. The cars were very small—much smaller than ours—and rationing had ended not long before, so the quality of food was very uneven. But it was exciting to see London."

Becoming part of an international community at Imperial was an education in itself. MacKenzie says: "One way the Athlone changed my life was by showing me I was living in a bigger world than Canada. One day I went to College and around seven of my colleagues weren't there—they were Israeli, and they'd gone back to fight in the six-day war."

When *Murray Clamen* (PhD Civil Engineering 1973) arrived at Imperial in 1970, there was political volatility in Canada, making for bittersweet memories of his first year. He says: "I went back to get married that winter and there was a serious crisis going on in Quebec. The FLQ [Quebec Liberation Front] had kidnapped the minister, Pierre Laporte and the British Trade Commissioner, James Cross. We later met him at an event, and he spoke about how difficult the situation had been for his family."

The Athlone Fellows also had to adjust to big differences in academic culture, with British research degrees far less regimented than their North American counterparts. Riordon says: "In Canada and the States, you went through a series of examinations and presentations to work towards the point where you could

proceed with the thesis. In Britain, you were just thrown in and had to sink or swim. It prepared you for independent research."

Monique Frize (MPhil Electrical Engineering 1969), the second female Athlone, had little trouble in negotiating the male culture of Imperial. She says: "There hadn't been many women at Imperial, but I never felt treated any differently from the men. Everyone was supportive, though Bill the technician would always find one of us Canadians frying the College power supplies—which we did because the wiring in Canada is different."

Imperial's engineering facilities were locked up outside office hours, leaving plenty of time for extracurricular activities. Bob Hemmings was introduced by another Athlone Fellow to the Victoria League for Commonwealth Friendship, a charitable organisation made up "mostly of ladies; they were very interested in people from the Colonies, and I'd be invited to speak to them about the history of Canada." Through the League, he was able to get seats in the royal boxes of London theatres, including the Royal Albert Hall.

Frize also took advantage of inexpensive opera, ballet and concert tickets. "I'd been a bit of a Quebec separatist in Canada," she says. "That ended very soon after I moved to London and attended the Last Night of the Proms. I was singing Rule, Britannia! as loudly as anyone in the hall. In the summer of 1968, I married an Englishman in Chelsea Registry Office. The years I spent in London and at Imperial remain unforgettable!"

But if there is one attribute that links all the Athlone Fellows, it's a belief that their time at Imperial was pivotal. Elfstrom says: "Employers would see the fellowship and the Imperial PhD on my résumé, and doors would open. It was a tremendous start to my career. Though I didn't end up as the rocket scientist I once dreamt of being, I still ended up in the high-tech aerospace field that grabbed me and never let go."

Rowe says: "Athlone Fellows were expected to become leaders, and many of us did exert great influence in Canada. I wouldn't call myself a captain of industry, but I think I met the criteria for leadership: learning to cultivate the skills and motivations of the people around me and bring the most out of them. And there was a camaraderie that has stayed with us. That's a lifelong thing."

In a measure of that comradeship, reunions took place last year in Toronto and Ottawa. More activities are planned, both as a means of renewing links and of exploring whether a similar programme could be brought back.

It's a plan that appeals to Clamen, a member of the youngest group to benefit from the fellowship. He says: "The Athlone had a very significant impact on me, my wife, my family and my career—and it forged friendships that have gone on to this day. It was a special time in my life, and I'm very grateful that the scheme was created."

THE GOOD FELLOWS

A total of 810 Canadians took part in the Athlone Fellowship scheme between 1951 and 1970, the majority (304) at Imperial, including:

Robert Leslie ('Bob') Hemmings read Chemical Engineering at the University of Alberta before coming to Imperial as an Athlone Fellow in 1962. He graduated with a PhD in the same field in 1965.

Neil MacKenzie, a Mechanical Engineering graduate of the University of Manitoba, won his fellowship in 1966. He chose to spend a year at Imperial, reading for a MSc in Operations Research and Management Science, and then taking up an industrial placement at the Birds Eye frozen-food division of Unilever.

J. Spruce Riordon came to Imperial in 1963 after completing a Master's at McGill University, Montreal, and spending six years working on radar development at the National Research Council in Canada. He was awarded his PhD in Electrical Engineering in 1967.

Ian Rowe, a University of Toronto alumnus, was working for the guided missiles division of de Havilland of Canada when he accepted an Athlone 'B' Fellowship in 1964. He studied for a PhD in Automatic Control Systems at Imperial, successfully completing his studies in 1967.

Monique Frize (née Aubry) received a BASc in Electrical Engineering from the University of Ottawa in 1966. In 1967, she became only the second woman to win an Athlone Fellowship, electing to spend two years at Imperial on an MPhil programme in Electrical Engineering (Engineering in Medicine).

Gary Elfstrom, a graduate of the University of British Columbia in Vancouver, won his fellowship in 1968 and arrived at Imperial the same year. In 1971, he graduated with a PhD in Aerospace, Aeronautical and Astronautical Engineering.

Murray Clamen followed his undergraduate studies in Civil Engineering at McGill University with a PhD in Hydraulics at Imperial. He was part of the last cohort of Athlone Fellows to be selected.

Comments & Letters from the Athlone Newsletters

(with Newsletter Numbers from 1 to 16 shown in title as (#x))

My First Year in Britain, by F. C. Lockwood, 1960 (#3)

(F. C. Lockwood is a 1958 Athlone Fellow from Queen's University, Kingston, Ontario)

It is not easy to describe, in so many words, my first year in England. If I had written down my experiences from day to day, it would be much easier. One does not adjust to a new way of life overnight. My impressions and feelings about Britain have had to be changed and modified many times during the year and are only now slowly stabilizing. Thus, looking back at all the various aspects of my life in Britain and trying to recollect how they affected me at the time is very difficult indeed.

Realism is the desirable thing. In order to try and make things sound amusing and exciting, one can easily adopt a cheery travelogue type of approach which will probably be altogether too unrealistic. Yet a realistic essay, which must criticize as well as praise, is bound to tread on someone's toes and therefore, I have attempted to choose a middle course which is neither too specific nor too vague. I hope that, in this manner I can convey at least a few of my impressions of England and also that they might be of some interest to future Fellows.

As the ship glided into Liverpool harbour, I can remember gazing at the seemingly infinite number of chimney-pots, stretching into the distance from either bank, and wondering just what it would be like in England. I am sure that all the Athlones were asking them-selves similar questions, viz: Will two years in England prove worthwhile or will I return to Canada, no further along the road of my career, with little gained other than two years of age? Will I find the British way of life enjoyable and possibly will I be able to live comfortably within the Athlone allowance?

As soon as we set foot on the dock, we began rapidly to form our very first impressions of Britain. The first thing I did was to try and organize my baggage. As I entered the baggage room, any Canadian ideas I had about the reserved English were immediately shattered; I have rarely seen such utter confusion. Possibly, to be fairer to British management, I could more aptly describe the scene as organized chaos. After considerable dashing about in this tumult, I finally learned that our baggage was in a separate room. Arriving in the proper

room I found a decidedly more civilized atmosphere complete with stolid customs officials.

I was to spend my first year working in industry in Coventry. My knowledge of Coventry was meager to say the least. I vaguely understood that Coventry was a city in the British Midlands, the geographically central and highly Industrialized part of the country. I knew, as does every other Canadian engineer, that Godiva was a lady who through Coventry did ride, I also learned from an Englishman on the boat that there was an old English expression which you used when you refused to associate with a person. You would say that you had "sent him to Coventry. This apparently originated because of a belief that the people of Coventry were not considered too talkative or friendly. So, it was with mixed feelings and some anticipation that I approached Coventry.

I arrived in Coventry by train on a grey and rainy afternoon. Having just spent my first two weeks in England, in gay and exciting London during reasonably sunny weather, I did not find Coventry particularly impressive. Rows of small, detached, red brick houses pressed in on the sidewalks. The air was thick and dirty, although when I later came to realize how much Industry there was in Coventry, I could not consider the air as being particularly foul. After a short walk from the station, I found myself in the city centre. The centre of Coventry was very badly bombed during the war and is being rebuilt along very modern lines. It is impressive and an interesting study in town planning and like most present day British architecture, it is sharply contrasted by more traditional surroundings. I came to a square in the heart of the town centre where I perceived a life size statue of a nude woman sitting on a horse. Due to my engineering background, I sensed the situation immediately: this was obviously a memorial to the legendary Lady Godiva! Considering the population of Coventry, 275, 000, it's centre is not very large and I soon found myself back between the endless rows of detached, red-bricked houses. My first impressions of Coventry were not un founded. I decided very quickly that it was very industrial, very working class Britain and very much a large member in the British economic structure.

I started work the next morning and before long I found myself settled and running in a routine groove. At first I found myself on an industrial training scheme. Now as these are relatively common in Canada, most Athlones will be familiar with what they generally involve: a training scheme gives one a thorough insight into an industry and is for a time, quite interesting. But they seem always to involve far more of watching others than doing things oneself.

After a few months, you begin to tire of this and desire some thing more stimulating, something that will at least tax some of your engineering training. In my case, I was fortunate as the firm managed to find me a place in their research department. However, this did give them some difficulty since I was only to be with them for a few more months. I have come to the conclusion that a year spent in industry is perhaps the wrong length of time. A few months would allow you to look over the whole organization while two years would be long enough to get your teeth into a job with some responsibility. But a year is too long to spend on a training scheme, looking and not doing, and too short a time to allow you to come to grips with any sort of a responsible job.

There were a number of other young men doing the same training scheme and except for one other Athlone, they were all British. They all had a good education and on completion of the training programme they could expect a reasonable job which would be well on the road towards an executive position. A very hard thing for a young man, fresh from Canada and full of the so-called pioneering spirit, to get used to is the static outlook of the average British lad. Their ambitions are not as razor keen as those of young Canadians. They do not seem to suffer from the restless, "I must get ahead in the world" feeling to the same extent. I do not mention this as a criticism since an easy going, "take things as they come" attitude would seem to have merit in this nervous fast moving modern world. The British lad is not so concerned about salaries and the hoarding of material things and this certainly cannot be condemned. Nevertheless, to a young Canadian, this attitude can be rather bewildering at first. Very few of my fellow trainees had concrete ideas about their careers or even the job they would like when they finished the training programme.

An Athlone living in the provinces, and more than likely in a British home, cannot avoid wholesale subjection to the British way of life. Frankly, it is not the same in cosmopolitan London where it is all too easy to associate with fellow Canadians or other foreigners. Living in the provinces, you very quickly become aware of such things as pubs, fish and chip shops and football pools. At first you are terribly keen to learn all you can about Britain. You rush about buying this and that newspaper and magazine, ask people a lot of questions and are generally very alert. You notice a lot of seemingly odd little customs and ways of doing things. Of course, some of these you find downright annoying. You point out to your British friends, with some pride, the Canadian way of doing this, that, and the other thing and how much superior it is. They are unimpressed and fail to think that it is superior. You, of course, are then even more annoyed.

One thing which annoyed me intensely at first, and for that matter still does, is the readiness of the British to form a queue. Now admittedly, queueing definitely has advantages in many instances but the British people, noted for their independence of character, their dislike of rules and regulations which infringe upon individual freedom, seem entirely addicted to this habit. They seem to be able to stand contentedly for ages in a queue wearing machine-like, stolid expressions resembling so many robots lining up for fresh batteries. But after a while you see that fighting these things will get you nowhere. The British way may not always be the most practical way but if there is any element of tradition involved, it has been done this way in the past, then, to the British, it is automatically the best way. So you stop your furious swimming against the tide and start to drift along with it and stop singing about the superiority of things on the other side. The British were tired of that old song long before you arrived on the scene! Of course, while doing this, you must never forget your Canadian upbringing or lose faith in its superiority.

One cannot consider Coventry as being a typical provincial city. It is, I think, fairly representative of Midland cities. As I have already said, it is extremely industrial and very much a working class city. The majority of its people are employed in the factories and many of them will spend a very large portion of their working lives doing precisely the same job. Whereas, I would think nothing of travelling to London for the week-end, I met a number of people in Coventry who had not been to London since the war and had only been then as a result of their military life. Wages are high in Coventry but high prices offset this somewhat. Coventry people are satisfied with simple pleasures and do not spend lavishly. They spend most of their spare time watching television or in the local pub or working about the house. The frequent football games are well attended. Late evenings are rare in their lives since their factory jobs require them to rise quite early. In some ways they tend to be a little narrow-minded but they are nevertheless contented and this is more important.

Now, although Coventry with a population of 275,000 is big by Canadian standards, it definitely lacks night life. It does offer two theatres, one of which is quite renowned, and a few cinemas, but not a great deal more. Concerts are almost non-existent and dances are few. A restaurant or a coffee bar which stays open until midnight is indeed a rarity. Of course, there are a lot of pubs, the melting pot of English social life but even they, in a flourish of bell ringing and light blinking, close precisely at 10.00 p.m.

Industry has made Coventry grow: it has grown rapidly and is still growing rapidly because of the employment it offers. New housing has spread over the surrounding country-side with the result that the city centre is disproportionately small and rather more akin to a large town than a sprawling city. Coventry is a very old town but not such an old city. It does not revolve about museums, art galleries and the like. It is fortunate in that it has a hardworking and progressive city council which is striving to keep pace with and to organize Coventry's increasing size and prosperity. The rebuilding of the bomb destroyed portion of the city centre is well on the road to completion. It is both modern and impressive. Coventry will also soon be able to boast of a new Cathedral. It is in the final stages of construction and replaces the original which was damaged beyond repair in the war. When finished it will truly be magnificent.

During the long winter evenings in Coventry, you find ample time on your hands to catch up with your reading, studying or letter writing. If you are athletically inclined, there are plenty of social and athletic clubs with quite reasonable facilities. If you can over-come the transportation problem, many enjoyable evenings can be spent in the very pleasant country pubs which surround Coventry. Stratford-on-Avon with its world famous theatre is a mere twenty-five miles away. The summer months in Coventry can be very pleasant indeed. They offer you the chance of travelling about the very pretty country of Warwickshire. A visit to one of the many Warwickshire villages is a very pleasant way to spend a Saturday or Sunday.

Athlone Fellows residing in the Provinces usually stay in "digs". My case was no exception and since to a Canadian, living in a British house approaches an adventure, no Fellow writing about his experiences in England, no matter how brief the essay, can avoid its mention. There are certain inconveniences that you will have to put up with in virtually any British home. By far the worst of these is the lack of central heating. You are living in reasonable comfort until the nippy days start to arrive. Then you start to note with alarm the general lack of insulation which, during the warmer weather, you had only casually acknowledged. The complete lack of storm windows, weather stripping and all the other things which Canadians take for granted makes British homes downright cold, clammy and draughty. Even the very recent homes seem to be lacking in this respect. A national British pastime seems to be trying to convince themselves that they have a temperate climate with the year consisting of three seasons: Summer, Autumn and Spring.

Throughout December, January and February there were only two warm, or more truthfully, reasonably warm places in my digs: sitting almost on top of the coal fire in the lounge or in bed under a tremendous weight of blankets. The rest of the lodgers and I would sit amid carpet-lifting draughts continually making futile efforts to get our large chairs in an impossible small circle in front of the fire. Once in those chairs, nothing could move us for the duration of the evening except once when in an amateurish attempt to roast some chestnuts, red-hot chestnuts started to shoot out of the fire and ricochet about the room. We would sit, talking, writing letters and so on, well into the night until, as it grew ridiculously late, we would finally muster up enough courage to dash up into our unheated bedrooms and leap into bed. This sensation could be compared to climbing into a box of fresh caught Arctic fish. Hot water was no less a problem. The hot water flowed so slowly that it was almost impossible to get a satisfactory amount of water in the bath-tub before it cooled off. The ultra-cold bathroom would become so steamed up that it made little difference whether the light was on or off. My fellow British lodgers who had given up trying to convince themselves how tough the British are after the first cold week, resigned themselves to saying that this was the way it has always been, so, logically, it must continue to be this way.

My first year in England although not entirely a bed of roses has been an enjoyable one. In so short an essay, it is only possible to convey the most meagre and vague thoughts of how it has impressed me. I am spending my second year in London and am finding it a good deal different from the Provinces. I am therefore happy in the fact that I will be able to return to Canada with an overall and true picture of Britain. So far, Britain has been a unique and wonderful experience for me and I would not have missed it for anything.

F. C. L.

Short Thoughts, by Paul Ukrainetz, 1960 (#3)

SHORT THOUGHTS OF AN ATHLONE FELLOW ON HIS STAY IN THE UNITED KINGDOM

(Paul Ukrainetz is a 1957 Fellow from the University of Saskatchewan. He spent two years on aeronautical engineering with the Bristol Aeroplane Co. Ltd., Filton, Bristol. Since his return to Canada, he has resumed studies at the University of British Columbia).

As I look back on the time I spent in England, by courtesy of an Athlone Fellowship, I am more than ever convinced that it was a wonderful two years of my life. I realize this more now that I have come back to Canada. Gaining a real insight into the life of British people on one side and British Industry on the other, is something I will cherish for a longtime.

The rather simple and easy way of life was certainly appealing to me. Gone is the rat race that is so evident in our new world. The friendly atmosphere at the pub, the warmth of the traditional fireplace at the home, the politeness of the people, and the efficiency with which matters are run, are peculiar only to England and are certainly striking examples to other nations. The country itself is very beautiful and is really a lot of little parks within one big park. The only thing I disliked about the weather was the fog in the fall and winter—it caused chaos in the rather orderly way of life.

British industry is advanced with respect to mechanization and methods of manufacture. A high quality of labour exists, especially in the aeronautical field. The quality of technical training given is second to none. The apprenticeship scheme offered by many industries is of great value to persons who are unable to attend university. All in all, the British Engineering Industry is making spectacular advances and the scope is great for those interested in developments of this nature.

An overall expression is of satisfaction and contentment. The Athlone Fellowship Scheme makes one more critical of his surroundings and gives one a different outlook on life. It strengthens our ties with Britain and makes us better citizens of Canada upon our return.

P. K. U

Impressions Of An Athlone Fellow, Roger Labonté, 1960 (#3) On His Stay In The United Kingdom

Introduction

(Roger Labonté is a 1955 Athlone Fellow from Ecole Polytechnique, Montréal. He spent nineteen months at Imperial College In London and four months at the employment of Messrs. Sandford Fawcett and Partners, consulting engineers in Westminster, London. Since his return to Canada, he has occupied the position of Assistant Professor in Sanitary Engineering at Ecole Polytechnique).

To live in a foreign country may be a great asset for a young man of a receptive mind and of an inquisitive spirit. For a Canadian there is certainly a genuine interest in getting the feeling of a related country such as the United Kingdom and in gaining a real insight into the life and the traditions of the British people. I feel this experience is a happy complement to one's education.

For a French Canadian of Montréal, a stay in the United Kingdom is even more interesting because it enables him to become more familiar with the language of Shakespeare. It is moreover an Intellectual enrichment due to the contacts it brings with people of different cultures and outlook.

As I spent almost the two years of my training in London, it is natural that I put the emphasis on London itself. It is intended to show first the London scene; to introduce its people and to point out different aspects of the life of London as seen by an Athlone Fellow.

The London Scene

Perhaps London is not a City that a person falls in love with at first sight. It takes time to get acquainted with London, to appreciate its subtle atmosphere and to enjoy it thoroughly. But when a person has learnt the London way of life, he remains attached to it for ever. As the boat train steamed away from London, I had the feeling I had lived there for years. I leave behind memories that have lit up and enchanted two wonderful years of my life.

Sightseeing is certainly a great attraction for foreigners and no observation post is better than the front seat of a red double-decker bus. In the rain or in a sunny interval, in the winter rains or by the dim yellow light of gas lamps, it is always a pleasure to watch the changing aspects of Westminster and of the City.

Within easy reach of London is the wonderful English countryside which I like particularly for Its evergreen meadows as pretty as a garden. Nothing is more relaxing

for a weary Londoner than to stroll In the quiet countryside or more fascinating than to visit on a weekend old country houses and romantic ruins that tell the visitor the story of many centuries.

Its people

As the largest City in the world, London is certainly overcrowded but a Canadian gets the impression of a perfect mechanism which runs smoothly and without much noise.

Perhaps Old England can teach the inhabitants of the Canadian land striking lessons of social virtues such as politeness and self-control. I have admired much the dignity of the British, their efficiency without haste, their particular sense of humor and of proportion and their deep attachment to tradition.

The English have simple taste and are great lovers of nature. They like to eat their lunch in the parks which are as numerous as they are beautiful. They enjoy most the cosy atmosphere of their home In front of the traditional open fire. They like sport in every form and do not mind the rain or damp weather. The cheerful atmosphere of the pub is something unique to a Canadian; for an English family the pub has become an Institution tradition which is part of English social life.

The life of London

Life in London flows at the same rhythm as the pace of its people, steady and firm. It is also the rhythm of the traffic through its narrow winding streets and of the Thames, ebbing and flowing steady and calm under its bridges.

Besides its intellectual and political life, artistic activities are numerous in London. Every night has to offer a wide variety of first class entertainment at Covent Gardens, the Royal Festival Hall, Sadler's Wells and the great theatres of the West End.

For night life there is Piccadilly and exuberant Soho which is the district par excellence for good restaurants, coffee houses, and all kind of entertainment, varying from the most sophisticated to the most trivial.

London is also a cross-roads where scholars from all over the Commonwealth and leaders of tomorrow's society meet and discuss solutions to world problems. These informal discussions lessen the differences between nations by bringing Individuals from them closer together and making them feel more alike and more human. Acquaintanceships started over a cup of tea remain very often over the ocean barrier. I retain the feeling that there are all over the world people of goodwill who

want nothing but the unity and the peace of the world and the well-being of mankind.

Conclusions

After a person has visited various places, met different people and heard conflicting Ideas, he inevitably starts to establish standpoints of comparison and to feel more critical or his surroundings and mindful of world problems. If an Athlone Fellow as the result of his stay in the United Kingdom has gained a more realistic and more comprehensive outlook, he will have learned in the same way how to put forward more constructive plans for a better and brighter future.

The Athlone Fellowship Scheme not only fulfills its aim of strengthening commercial ties be tween Canada and Britain. It also fosters brotherhood and mutual understanding be tween the people of Great Britain and the Commonwealth. An Athlone Fellow, when he returns to his own country, returns as a better citizen of Canada, which is important; but what is more important is that he returns as a better citizen of the Commonwealth as a whole.

ROGER LABONTÉ

From McGill University-1960 (#3)

The following quotation is from the "McGill News" (Winter 1957 issue).

"McGill ENGINEER GETS CREDIT FOR ENGINEERING FEAT ON JACQUES CARTIER BRIDGE"

"An unprecedented feat of engineering surgery was performed on Montréal's Jacques Cartier Bridge this fall. Credit for its success goes to Dr. Ross Chamberlain, B. Eng. 1951, who was responsible for designing the new span and devising means of installing it.

"A 250-foot section of the famous bridge was replaced at the Southern end in a period of 5 hours—one of the more spectacular phases in the overall construction of the St. Lawrence Seaway. Engineers have called it a world's first in structural steel moving technique.

(Ross Chamberlain was a member of the first contingent of Athlone Fellows to be picked for training In the United Kingdom, and did post-graduate work In the Civil Engineering Department of Birmingham University under Professor Redshaw.)

An Industrial Visit—by S. R. Swanson & T. R. Nettleton–1960 (#3)

A visit to Messrs. Short Brothers & Harland Ltd., and the Engine Division of Messrs. Harland & Wolff, Ltd., Belfast,.

(S. R. Swanson & T. R. Nettleton are Athlone Fellows of the 1956 Group, both from Toronto. Each spent two years at the College of Aeronautics, Cranfield.)

On September 27th, we visited the aircraft plant of Short Brothers and Harland, where Mr. Woolmer, the secretary, had arranged a tour for us, guided by Mr. W. J. Allen, the fatigue test engineer. Upon our arrival we were welcomed by Mr. Bissett, chief test engineer, who in turn introduced us to 'Sam' Allen.

A short discussion followed, in which we established our main interests, and also unfortunately discovered the extent of security restrictions. Our guide then took us to a typical drawing office where an enthusiastic section leader discussed office organization with us. me conversation took a very interesting trend when we asked about the qualifications of a typical drawing officer employee. Being Canadian engineers, we were keen to compare the various ways In which a young man may rise through the company, mowing that such a drawing office is fertile ground for future engineering executives. We were impressed by the combining of practical and theoretical training that takes place in this country in comparison to our own. We found that the status of such a person is very fluid here, whereas In Canada the draughtsman and the engineer are most often two entirely different categories.

Besides night school courses, the company also finances the further theoretical education of the more promising apprentices and senior personnel. We found that the firm has two such men enrolled at our College of Aeronautics at Cranfield. There is also a good deal of cooperation between Queen's University and Short Brothers in the obtaining of Higher National Certificates. There is no real counterpart to this particular qualification in Canada. This university is presently in the process of setting up an engineering faculty of its own.

From the drawing office we passed through a large machine shop to the Plastics Department. A very enthusiastic 'chargehand' then showed us many plastic components—blister canopies, wingtips, radomes, airliner windows etc., before setting up a demonstration of the fascinating method in which a skilled craftsman formed an oval plastic airliner window. This forming is done by pneumatic suction to very close tolerances.

As we were passing through the last section of this shop, we noticed a very intricate plastic ducting assembly for the air conditioning system of the Britannia Airliner. We enquired about the forming of such an involved piece. The chargehand beamed, and related to as now this part had formerly been manufactured in sections by the parent firm, and now a craftsman of Short Brothers had devised an improved single piece mould for it. We found this example typical of the high quality of labour existing in the British aircraft industry. It also led us to consider the Canadian labour force which through mass assembly techniques is unable, in general, to foster such initiative at this employment level.

From these subordinate shops, we arrived at the huge main assembly line. Here we were thrilled to follow through the assembly of the gigantic Britannia. Being very familiar with the assembly of relatively small aircraft at home, we were really impressed with the techniques required to assemble on such a large scale. We were surprised that dummy engine and undercarriage masses were applied to the structure at the early stages of assembly, to bring about the strain pattern which would be realized by the final aircraft. The timing in bringing together the various components of such a large bird seemed to be very carefully considered.

Many items of interest such as the Canberra and Seamew Assembly lines were unfortunately out of bounds to us, because of the security regulations.

We were, however, able to examine the huge Losennausen tension-compression fatigue machine. This apparatus, pride of the structural test department, cost over £40,000 to purchase and install. It has a range of from five to one hundred tons, with an alternating range of fifty tons. The example shown to us was a bar of structural steel, being subjected to 10-55 tons, causing a stress of from 1.1 to 6.1 tons per square inch at a frequency of up to ten applications per second. Our former work at De Havilland Aircraft of Canada gave us a keen appreciation of the enormous capacity, and therefore the great value of the machine.

The last highlight of our tour was the recently completed speed wind tunnel. Here an aerodynamics specialist, Mr. Biggs, took great pride in describing its operational details and performance characteristics. This tunnel represents a departure from the common intermittent tunnels we were familiar with in Canada and the United States. Here a trio of Nene 3 jet engines create a tremendous suction through the test section, causing outside air to rush through the panelled throat at velocities up to 126% of the speed of sound.

Moisture condensation and foreign matter are presently the major problems to be solved. The enthusiasm of this single member of the tunnel team assured us that these difficulties will surely be overcome.

Further discussion with Mr. Bissett and Mr. Allen took place after a most enjoyable luncheon. The many facets of the aircraft Industry— design and development, fatigue problems, airload conventions and definitions, test data accuracy and reliability, and finally the differences in the British and Canadian market requirements essentially filled the afternoon. We then broke off and returned to our hotel in Belfast.

On Friday, 28th September, Short Brothers and Harland arranged a tour through the Harland and Wolff Engine Plant for us. Our guide, Mr. Bowen, was a former apprentice at this shop and was very enthusiastic about showing and telling us as much as he could. A very practical man, he didn't miss anything.

The tour started in the design office where we interviewed the chief draughtman, a friend of Mr. Bowen. Again we had a long chat about education and technical standards. Of engineering interest was an explanation of a current problem involving serious vibration in a new turbine engine. This problem was tackled and solved in a very simple manner when our host was describing it. However for very experienced men, the problem was probably quite straightforward.

From the drawing office we proceeded to the engine test beds where a new power plant was being prepared for its initial run. We were shown the dynamometer and other test apparatus. We also noticed the supervisors and foremen with the black bowler hats which Mr. Bissett had mentioned the day before. Apparently this badge of office is an old custom in the British shipbuilding industry. Amusing at first, this system is quite practical in that both workmen and strangers definitely know who is in charge of a shop. It is similar to an officer, on board ship or on land, wearing a distinguishing hat.

Next on our itinerary we went through the section of the shop where engine components such as cylinder heads, connecting rods, crank cases etc. were given their final machining and then assembled into major engine components. We were greatly impressed by the large milling machines, lathes, and planes. Some of the cutting processes were so slow that cooling fluids were not required. An analogy might easily be drawn between the fast and comparatively light aeroplane and the slow and heavy ship and the manner in which they seem, at a quick glance, to be

constructed. We were equally awed by the sizes of drive shafts which we saw in various states of completion and also by the immenseness of the transmission gearing. We observed turbine wheels being machined and were surprised at first to notice the comparatively small outside diameter of them. However when one considers the engineering problem at hand, nothing was really out of place. Also of interest were the high capacity bridge cranes common to all heavy industry and other ships' components such as funnels, rudders, large compressed air tanks used for engine starting etc. This tour was a fitting complement to the tour which the Athlone Fellows arranged aboard the S.S. Empress of Britain (engine rooms). We have now seen marine engines being manufactured, tested and in service.

Our overall impression was that reliability for many years is a major factor in marine engine design. While it is true that equivalent horsepower aero engines will be very much smaller and lighter than these huge machines, they will have been returned "to the smelting furnaces" long before their marine counterparts require extensive repairs. Thus the aeronautical engineer must stand reminded that design, with light structures and minimum factors of safety, for comparatively short service lives, is not necessarily the most important.

After we left Mr. Bowen, we decided to visit the Royal Canadian Navy aircraft carrier, Bonaventure, now being fitted by Harland and Wolff. Our unguided tour consisted mainly of the hangar and flight deck installations which were of great interest to us. This ship will be in service with the Canadian Navy very shortly, and so we were very fortunate indeed to have had a "sneak preview" on board.

SHORT REFLECTIONS FROM MID-ATLANTIC-by E. Fanjoy (#5) ON THE JOURNEY HOME

(Emery Myles Fanjoy is a 1958 Fellow from the University of New Brunswick. He spent his two years on electrical engineering (communications; the first at the Imperial College of Science and Technology and the second with the General Electric Co. Ltd.).

Now traveling home after two years in Britain, one naturally finds oneself thinking "Was it worth It?" It was two years at a good salary lost and it used up all the savings so helpfully to a newly married couple. In spite of this my wife and I both feel that we did the right thing and recommend it to any other young couple in similar circumstances. Britain will always bring to mind now fond memories of the wonderful summer of 1959—and the fog and smog in London; the warm cheery fireplaces—and

the cold cold bedrooms; the many and varied musical entertainments —the roar of motorcycles, the fenlands and the highlands, booming aggressive Coventry and interesting Polperro, the M-1 and the twisting high-hedged unclassified roads. It is a land of many contrasts in a small area and although some things were not so pleasant at the time, they are now looked on being part of the pleasure or living in a different country.

Moving away from home also gave us a chance to see Canada in a less biased and more critical light which can be or great benefit to the individual and, in the long run, to the country.

For the chance to spend years in the United Kingdom and to look at Canada from the outside, the Fellowship was well worth taking, quite apart from any professional advantage it offers.

I feel that the technical training received suited my personal needs very well, and for the wide freedom to plan my program I am indebted to the Managing Committee and to the General Electric Company Ltd. The actual training could probably be obtained in Canada or the United States just as well, and how much recognition Canadian employers will give for two years' training in Britain only time will tell. The Fellowship does, of course, give one a knowledge of, and personal interest in British industry which no amount of reading and advertising can do. On this rests the future or the Scheme, and if the old country can continue to design and manufacture modem quality equipment at competitive prices International markets will be assured. We are sincerely grateful to the Athlone Fellowships Scheme and wish it continued success in the future.

Fanjoy

Heather Ski-ing-by R. S. Forbes #5

(Robert Stuart Forbes is a 1959 Fellow from Queen's University, Kingston, Ontario. He spent his first year on production engineering with Alexander Pirie & Sons, Ltd., Bucksburn, Aberdeen, and is spending his second year on the M.Sc., Production Engineering Course at the University of Birmingham).

"Dam that alarm! Who set it so early" Ah yes, it's Sunday, and I promised to go skiing today. Well, I've been up before on many an occasion and lived to tell the tale, so...

A quick wash and shave, and then down to the kitchen for a big bowl of porridge, sausages, eggs, tea and toast. One or the essentials for Scottish skiing apparently is to have a big breakfast. And I'm not one to complain – about eating!

And so began a wonderful Scottish adventure. I was living in Bucksburn at the time, five miles north of Aberdeen and had joined the Aberdeen Ski Club; thus signing away my quiet Sunday afternoons in some lonely country pub (as a bona fide traveller) to a day of gorgeous outdoor activity. Little knowing at the time that my vigorous outdoor activity involved something like 12 hours hard labour.

By 6.25 I was all set; lunch, skis and ski boots. My pack was a bit heavy, but I had been told that a complete change of clothes was essential. And so, with clothes, thermos bottle, biscuits and Ski wax, my pack was an appreciable weight. And much more appreciable after five mile walk. But with undaunted spirits I set off with my load for Aberdeen on this cold frosty Scottish morning. I had planned on a casual walk into town and so had generously allowed myself 85 minutes. For once (?) my mathematical engineering mind failed me. I shall not mention how late I was but many minutes later I arrived, not very casually, at the bus stop. As far as I was concerned, I had done my day's work. But there was no turning back. After all. wasn't I a Canadian! Aren't Canadians supposed to be strong and hearty? Anyway, Aberdeen bus service doesn't go into operation until 9:30 am Sundays and I was darned if was going to walk that 5 miles again. So with a brave smile I threw my skis into the boot or the bus and clambered aboard.

The trip into the Grampians was for the most part uneventful. I was hoping to get some sleep but that was not to be. me Scots are a friendly people and I, being a stranger, they were interested in knowing who I was, what I was doing and could I ski? During these conversations, I began to notice that all my fellow skiers were wearing a type or climbing ski boot. I rather chuckled at this for I thought it was a perfect case or Scottish economy. Little did I know.

As the time passed I also began to realize that no me knew where we were going. I thought unusual but hesitated to enquire why. I later learned that the decision was never made until we arrived at Profeits Hotel—a small hotel in the foothills. A discussion then began between the committee and skiers who had been in the hills all week. In this way the best selected each I thought this was an excellent idea and even more so when the snow a little sparse in the spring. For today it was decided that Glas Maol near the famous Devil's Elbow had best snow conditions

As we wound our way up into the glen, snow began to appear: 2, 3, and 4 ft deep. Still, the hills looked barren and I thought we had a way to go when suddenly the bus ground to a halt.

"Everyone out, we walk from here!"

I was petrified!—not another walk. But there was no avoiding it. While the hills held little snow, the glens were blocked and the bus could go no further. As we weren't to be coming back to the bus, I laced up my boots and clumped out of the bus for my skis. Surprisingly, everyone was walking along the road. Not understanding but deciding that conformity was as advisable, I wearily lifted my skis and joined the skiers. About half an hour later, cars began to appear in small bypasses along the road that only British cars could fit in. Off on the left I could see a long line of skiers, laboriously climbing a ridge, looking so very much like the old prospectors on the Chilkoot Pass during the YukonGold Rush, that I had to chuckle to myself. The chuckle began to sound a wee bit hollow when I began to realize that I, too, was destined to climb that hill. "The climbing ski boots began to have more significance", for Glas Maol lay 3 miles off the main road over a number of mucky, soggy, rocky, heather strewn hills.

As I reached the peak of the last hill, the scenery was such that would make ant skier's eyes glisten. Glas Maol was covered with snow, we'll, at least 60% of it and there seemed to be skiers everywhere. Up one side of the hill rested a sturdy ski tow and for this, I quickly murmured a prayer to St. Andrew, my first modern convenience of Scottish skiing I'd seen. I turned towards the tow, determined not to waste another moment.

"Hey Forbes, where are you off to?"

"The ski tow!" I happily shouted back.

"Best of luck, see you at the top!" As I turned back to the tow I realized what he meant. No life was apparent around the tow, and St. Andrew did not receive his customary blessings. And the tow did not work at all that day.

The view from the summit of Glas Maol was super (in British terminology) for it was one of those exceptionally clear days (and any clear da is exceptional in the Highlands) and we could see the surrounding hills for miles around. Tired, but in good spirits we sat munching our lunches and admiring the vast vistavisions of the Highlands. Skiing? Did someone mention skiing?

About 1 o'clock, 7 hours after rising, with my lunch comfortably digested, I put on skis for the first time that day. It was now many months since I had done any skiing and so, with a sudden surge of eagerness, I pushed courageously off downhill. What a tremendous feeling it was to feel again the blast of fresh air on my face, the rush of snow beneath my skis, the exuberant feeling of freedom that comes to all downhill skiers. The snow was perfect for skiing. The snow! Where the! Smash!

"You should know better Forbes, you're not in the Laurentians now. You've got to ski from one patch of snow to the next."

"My goodness Jock. You call that skiing. You ski 50 yards, walk 20 yards to ski from one patch of snow to ski another. Not for me, I'm staying right here."

"No, no, laddie. You ski over the header. Just let your momentum carry you across. But remember–look out for rocks!"

Tremendous! Heather skiing! That sounded pretty good to me, for it was something only Scotland could offer. Shaking off the snow and heather from my clothes i again set off enthusiastically downhill. Gradually picking up speed (for my rented skis were a bit heavy and in bad shape) and keeping an eye out for rocks, I again shot off across the snow, fully assured by my Scottish friends that all was well. Approaching the next belt of heather I carefully scrutinized it for rocks and then with a mighty shove shot onto it.

Whissslm, bump, bump, bang...crash!

As little bits of heather floated softly down on my prostrate body, a gentle voice was heard to say—"My goodness! Did you see that? I thought the Canadian said that he could ski", followed by "Hey there old man, I thought you were an engineer? You should know that heather has a greater coefficient of friction than snow. You've

got to expect to slow down a bit when you hit it. Lean back on your skis like this and you'll shoot over, NAS bother."

Well! It sounded reasonable. I decided to keep my more viscous comments to myself for the time being and try out the new method. My ski pants we now soggy and mucky, bits of heather clung to my anorak, my left leg was bruised and I had a sore shoulder. I got to my feet, looking I suppose a bit shaken and desperate and went at it again.

Finally I did master the fine art of heather-skiing and believe it or not in remarkably short time. Actually you don't get much time to learn this unusual art of heather skiing. It took 20 minutes to climb the hill, 5 minutes to rest, and 5 minutes to descend (if you tried real hard to delay it as long as possible). Thus we made a remarkable 8 runs that day. But regardless of the work, it had been a wonderful day's outing. I had made some more friends, and had seen a little more of Britain. And so, in a tired, sore, hungry and wet sort of way I was well satisfied with my day.

At 4:30 we started back for the bus, this time determined to ski back. Unfortunately there was a lot of heather and rocks with a little snow mixed in to ski over, but then, they weren't our skis and we were able to cover the distance in half the time.

Someone had placed a pair of mucky ski boots on my suede jacket but by this time I was too tired to care. All I wanted to do was to settle back in my wet socks, pants and jacket and go to sleep.

"Wakee! Wakee! Everybody out, Profeits Hotel!" "Why must we stop here? I'm tired and hungry and want to go home."

"Come on lad, there's a roaring fire and the barks open."

"We'll, why didn't you say so sooner?"

It was a wonderful, warming, welcoming feeling as each little rivulet of hot liquid found its way through my bruised and battered body. The heat from the fire was causing high clouds of steam from my clothes and as the hot whiskey found it's way to my empty stomach, my spirits began to rise.

With a final doch an doris we were soon again on our way home. And for the moment, our hunger and tiredness were forgotten, as song after song burst forth from Bonny Dundee to the Ball of Killemuir (both verses). The Scots have a wonderful selection of songs and I'm sure they sang them all on the short ride home.

"Forbes, are you off at Anderson Drive?" "Yes, I promised to visit some friends." "Good enough, Cherri for now!" "See you next week, Cheers!" "So long!"

My friends were pleased to see me, and realizing I was tired, sat me down beside the fire with a dram, to watch TV. That was fatal. I fell asleep and missed my bus by half an hour. Home! After, a two hour's long, long walk home, a hot bath and to bed. And so a tired and weary skier finally laid his head to rest.

Much more misery, despair and disappointments were to greet me in later ski trips into the Grampian Hills but despite this I shall always consider these trips as among the finer things I encountered in Britain. For I doubt better companionship and comradeship could be found anywhere than on this vigorous outdoor Scottish activity.

R. S. F.

COMMENTS—by John Almond-1952 (#6)

After several years, it is difficult to isolate specific parts of the training one received and to show just how it proved useful in one's later work. Apart from the advantage of a wider experience gained by spending two years at a British University, I think two aspects of my training proved of specific value to me. The first arose because of the research I did for my thesis, and the second out of the post-graduate courses I took at Imperial College.

At that time (1952) the transistor was a relatively new device in the electronics industry and my thesis work was associated with the use of transistors in feedback amplifiers. The experience gained in this relatively new field was invaluable when I was given the opportunity of doing some research in transistor theory when I joined the company for which I now work. The Electrical Engineering Department of Imperial College offered a much wider range of graduate courses than was available at any Canadian University and I was able to attend courses in such subjects as Information Theory, Communication Theory, Statistics, and Servomechanisms given by recognized experts in their fields. These courses served as a good grounding in the field of Statistical Communications Theory which has been my major interest for the past three years.

John Almond 1952–1954 R.C.A. Victor

COMMENTS—by H. R. Beck, 1952 (#6)

In order to spend two years in England on the Athlone Fellowship (1952-1954), leave of absence was granted by the C.N.R. Being involved in the field of railway signal engineering, the time in Britain permitted, in addition to one year post-graduate study at Imperial College, an opportunity to spend time with three main signal suppliers in England, also to observe signaling practices and equipment on the Midland Region of B.R.

This first-hand experience provided a worthwhile insight into production and application of railway Signal devices in Britain and has been particularly useful since we *have* purchased a considerable amount of railway signal equipment from one of the English manufacturers during the past *five* years. Contacts made with railway and supply personnel while in Britain have made it possible to keep

in close touch with their new developments in the signal engineerIng' field, some of which may have application in future to our systems.'

H. R. Beck 1952–1954 Canadian National Railways

COMMENTS—by R. E. Chamberlin, 1951 (#6)

From June 1951 to November 1953 I used my Athlone Fellowship to do post graduate work at the University of Birmingham for a Ph.D. degree in Structural engineering. After returning to Canada I joined Dominion Bridge Company in their Structural Design Department.

From 1956 to 1958 I was project engineer for the modification of the Jacques Cartier BrIdge for the St. Lawrence Seaway. To complete this work Dominion Bridge Company had to purchase a large quantity of hydraulic jacking equipment with specially designed elaborate hydraulic controls. This equipment was purchased from Tangye of Birmingham, a firm which I had visited while in England. My knowledge of British engineering was at times useful during these negotiations. Since 1958 I have been in charge of the Structural Design Department, Montreal Branch, and later in charge of Product Development for the company. In both of these positions the technical training I received in England has been a distinct necessity.

R. E. Chamberlain 1951–1953 Dominion Bridge, Montreal

COMMENTS—by Red Henderson, 1956 (#6)

Looking back, I am asked in what manner has the Athlone Fellowship furthered my career. What relationship is there between my present employment and the experience gained through the Fellowship?

Both my years in Britain were spent academically at the University of Birmingham conducting research into the stress distribution within steel structures, particularly welded knee brackets having a curved inner flange. My present employment is in the design office of DominIon Bridge Co. Ltd. where I am concerned with the analysis and design of steel structures. There is certainly no doubt that the knowledge and training acquired under the Fellowship is of direct assistance in my daily work.

However. I am firmly of the opinion that even greater value results from the unique opportunity we had of experiencing life in Britain, of seeing the world of men and ideas from a different vantage point, and also of seeing our own North America from abroad.

The Athlone Fellowship has been invaluable in extending our qualification for practical living, but its greatest benefits affect the intangibles of life. A superlative institution.

Red Henderson 1956–1958 Dominion Bridge

COMMENTS—by B. Lamarre, 1952 (#6)

In 1952, I had the good fortune of be ing awarded an Athlone Fellowship to study at the Imperial College of Science and Technology in London. Two and a half years later, the College authorities decided that I was ripe for a Master Degree and for a trip back home.

This ended one of the most rewarding and intellectually challenging periods of my life. My only regret at the time, was that I could not remain longer to enjoy the "cradle to grave" care of the welfare minded British Government.

In looking back, I am still of the same opinion about my stay in England. The postgraduate course that I have followed in civil engineering and the industrial visits that I had the opportunity to make have certainly influenced my

engineering conceptions and helped me in my work in the consulting engineering field.

There were many occasions to apply the prestressed concrete and plastic design theories learned in England. Also the research that I made under Professor A. A. L. Baker at the Imperial College on concrete mix and on stress-distribution in a concrete element subjected to bending, proved to be very useful in many circumstances. I still subscribe to many fine technical publications that I became familiar with in England, and in which can be found interesting solutions to all sorts of engineering problems.

Apart from the engineering field, I believe that one of the great advantages of a stay in England for a Canadian, is the opportunity to observe and appreciate some of the best aspects of the British philosophy of life. The truly democratic Government procedure, the kindness and politeness of the civil servants, the orderly way in which all activities are performed, are but a few of the intangible commodities which Great Britain should export to many parts of the world.

Although the Athlone Fellowship scheme is accomplishing most of the purposes for which it was established, it could possible be improved in some aspects. From my experience abroad, and from discussions with other Athlone fellows, I would like to put forward the following ideas:-

- The Athlone Fellowship should be preferably awarded to an engineer having two or three years of practical experience. This would enable him to benefit to a greater extent from his sojourn in British Universities or Industries.
- 2. One of the present programmes which consist of two academic years in Universities could be completed with practical work in industries during the two summer vacations. Arrangements should be made with the appropriate industries to that effect by the Athlone Fellowship committee on behalf of the fellows.
- 3. A tour of Great Britain should be organised by the Athlone Fellowship Committee for all Athlone fellows during their stay.
- 4. Whenever possible, the Athlone Fellowship Selection Committee should have among its members, one or two Athlone fellows.

Some of these suggestions may already have been implemented, but I submit them in case they have been overlooked, as I feel they could perhaps improve an already very successful initiative of the British Government.

B. Lamarre, 1952–1955, LALONDE & VALOIS

COMMENTS—by Robert Newey, 1952 (#6)

The committee of the Quebec Athlone Fellows Association is collecting a series of comments for the next News Letter on "Benefits of the Athlone Fellowship" . No doubt these benefits are expected to be technical, which rules out the obvious cultural benefits of the scheme.

It would be very nice to say "while in Britain I learnt so-and-so, and when I came back I applied it in this way". I was one of those who took the two year apprenticeship course that is offered to British graduates. The Athlone scheme began while I was in college, and providing such a course was advertised as its principal aim. I applied for a fellowship because I felt that I had missed, in my summer jobs, the practical training I wanted, and because I felt that Britain was a good place to get it. When I got the Athlone I got the training course I asked for.

In retrospect, because the course was designed for those who would be working for the company when they were finished, I would have had a broader idea of what British industry is like if I had taken one year in each two companies. If I had arranged my time the first year with the idea that at the end of one year I would be leaving, then after some time in Britain I could have made up my mind whether I wanted another year of the same thing somewhere else, or whether I wanted to try one of the one year post graduate courses offered by some British universities. (I have heard it said that these courses are not universally recognized in Canada, but surely a years study at a university of world-wide repute is an advance over the simple Bachelors degree.)

Since returning to Canada I have worked five years for one company, doing both design and research work. I am sure I am a better engineer for having had two years in Britain. What I got on my Fellowship was a "feel" of Engineering, beginning in the foundry and the fitting floor and working up to the offices, and this practical experience has stood me in good stead. Whether, knowing what I now know, I could have got more out of a different program for my two years, is something I will probably never be sure about.

Robert Newey, 1953–1955, Dominion Engineering

COMMENTS—by Maurice Poupard, 1954 (#6)

When I applied for an Athlone Fellowship in 1954, I had a definite program in mind and it was to get some technical experience with engine, steel and gas turbine manufacturing industries and also to attend specialized courses in mechanical vibration and lubrication in machinery.

At that time, I was employed by the Ecole Poly technique of Montreal as assistant and I could get a leave of absence for only one year. Fortunately, I was granted an Athlone Fellowship for one year only. As far as my program was concerned, I worked for some companies of the Brush Group, i.e., Petters Co. at Staines, National Gas & Oil Co., at Ashton Under Lyne and Brush Electrical in Loughborough. I also spent some time at the University of Sheffield in their Post-Graduate School of Applied Mechanics for my courses in vibration and lubrication.

I enjoyed 'my stay quite a lot and I find that it was an interesting human experience to be able to travel and get to know people from a different country. Although it was not perfect, I was quite satisfied with the training and knowledge obtained during that year. It was also a great help later on for my work as a professor, because when I came back in 1955, I resumed my post at the Ecole Poly technique where I am now employed in the capacity of Associate Professor in Mechanical Engineering.

Maurice Poupard, 1954–1956, Ecole Poly technique - Montreal

COMMENTS by J. P. Vilagos, 1955 (#6)

My post-graduate training under the Athlone Fellowship Scheme was in Industrial Engineering, specializing in materials handling, plant layout, cost control and administration.

My two years programme in the U.K., 1955–57, was one year at Birmingham University and one year in industry. Since my return to Canada all my work has been in the industrial engineering field, and I can honestly say that my training in England has contributed greatly to my advancement in my Company. I doubt if I would have advanced as quickly without the bene fit of my Athlone studies. My present position is Co-ordinator of Work Study, Great takes Region, Canadian National Railways.

J. P. Vilagos, 1955–1957, Canadian National Railways

COMMENTS—by Paul Webb, 1955 (#6)

During the period in which I held an Athlone Fellowship, I studied at the City and Guilds College, London. At that time the field of semiconductors, and in particular transistors, was relatively new, and many new techniques were being developed for the manufacture of better and better solid state devices. My interest was in the more fundamental work on the solid state materials and fabrication processes, rather than working with the finished products. My particular work in England was a study of impurity diffusion techniques in Germanium. This work eventually led to the writing of a Thesis and acquiring an Msc degree.

Since returning from England I have been employed at the R.C.A. Victor Research Laboratories, and my work follows very closely on the work done in England, i.e., a study of techniques and processes for the fabrication of special semiconductor devices.

Thus, apart from the invaluable experience gained by doing two years of research, and of writing a thesis, the knowledge gained during that time has been of direct value to me in my new work.

Paul Webb, 1955–1957, R. C. A. Victor

SCARLET BEADS OR STOMACH ULCERS?—by Ian S. Gartshore, 1957 (#6)

(Ian Stanley Gartshore is a 1957 Fellow from the University of British Columbia, Vancouver. He spent his two years on the M.Sc., course in aeronautical engineering at the Imperial College of Science & Technology and returned to Canada via Africa and the Americas as a Member of the Imperial College Africa and Americas Expedition. He is now with National Research Council of Canada).

The 1960 IMPERIAL COLLEGE AFRICA AND AMERICAS EXPEDITION "Report"

The Imperial College of Science and Technology, a part of London University, is located behind the famous Royal Albert Hall in London and has about 3,000 students. Every year from this college, about 10 student expeditions set out, each with official sponsorship from the Imperial College Exploration Board and each with a definite purpose: some to collect geological or botanical specimens some to survey formerly unmapped territory, some to study glaciers or ice fields, and others to combine several of these activities, often in areas that take them half way around the world. In mid-March of 1960, the Imperial College Africa and

Americas Expedition left London to travel by road through Africa and South America in order to study light aircraft operations in the two continents. Eight months later, the team had travelled over 40,000 miles and had conducted over 150 personal interviews with relevant personnel along the way. The results from these interviews are being correlated and will be given to "interested parties" in the United Kingdom.

The Commonwealth crew of three, Dave Hyde an Englishman, Bill Melbourne, appropriately enough an Australian, and myself, a Canadian, met while doing post-graduate work in the Aeronautical Department of Imperial College. Although we financed part of the expedition ourselves, both the Society of British Aircraft Constructors (through the John de Havilland Award), and the Imperial College Exploration Board provided sponsorship, and most of the equipment was supplied by other generous organizations.

The African part of our trip took us from Gibraltar to Morocco, across the Sahara Desert to Nigeria, south and east through the Congo to East Africa and southward via the Central African Federation to Cape Town in South Africa. In all, we spent about three months travelling 15,000 miles along this general route.

The Sahara crossing was not extremely difficult, as most of the hazards involved are eliminated if the journey is made in a 4-wheel drive vehicle in good condition. Only if we had become lost or badly stuck or if the Land Rover had broken down would we have been in any danger. The worst effect of the high temperatures and low humidity was a thirst which drinking did not seem to quench, and it was not until we were able to soak in the tepid water of the Niger River that we again felt normal. Unfortunately this normality lasted only a short time, for the Niger water, as well as relieving our thirst, gave each of us a severe case of dysentery. Lesson number one: never believe a local when he tells you that the water is potable!

Continuing British influence can be seen throughout Nigeria, even though the Climate there has been too unpleasant for large-scale white settlement. Tarred roads and small but busy hospitals and schools were quite frequent, as were the "mammy wagons"—trucks piled high with screaming native commuters. In contrast, roads and trucks were both very uncommon in Central Africa. Natives there, since they have never owned bicycles, much less trucks, see no reason to maintain roads; paths are certainly far more practical, although they make tourist travel rather difficult. They have no money and eat nothing grown out of their own district; they work very little and wear even less (standard dress for one group, the "banana" tribe, is a demure necklace of scarlet beads!) It will be

marvelous if these people can effectively be given a vote without first receiving some of the background on which democracy is based.

Our little portable radio, still bringing in the B.B.C. at irregular intervals, told us of trouble in the Congo, and so we requested permission in Stanleyville to camp behind a Roman Catholic school. Frere Charles, whom we met at the school, drove us into the city in the evening to hear the frightening sounds of an anti-Belgian riot, a result of Lamumba's recent election campaigning in the area. We often wonder where Frere Charles is now, for he planned to stay in his school regardless of the political situation.

From the clear, cool highlands of Kenya, now filled with bitter white settlers, the road drops slightly to Nairobi, the capital. In places the city looks like an English suburb, whereas other parts reflect the enormous influence of the many East Indians who live in East Africa. Leaving Nairobi, we skirted Kllimanjaro and drove southward through Tanganyika and into the Federation of Rhodesia and Nyasaland. Both Kariba dam and the "Smoke-That-Thunders", Victoria Falls, were very impressive. The falls, a mile of water plunging over a 320-foot cliff into a narrow gorge, deserve their reputation as one of the world's most spectacular sights.

In both Johannesburg and Cape Town, we stayed in university residences with little or no charge. as guests of the universities in these cities; such was the kindness of the South Africans whom we met. On July 5th our Land Rover was loaded on to a Dutch passenger ship in Cape Town, and later we watched Table Mountain recede slowly into the distance as we sailed "away to Rio".

Rio de Janeiro must certainly be one of the most beautiful cities in the world, and one of the most cosmopolitan. The banks and post-offices of South Africa, where whites and non-whites are separated by the laws of apartheid, seem quite ludicrous when viewed from within the multi-racial society of Brazil. There are so many races in the country, and people have inter-married so freely there, that race prejudice is difficult to practice.

We picked up our car, which had been refused entry into Brazil, at Buenos Aires, and after spending several days in this sprawling metropolis, drove westward across the cattle-covered pampas of the Argentine towards the Andes.

The Mendoza Pass through which we had planned to drive was blocked with rock and snow, for we arrived there in August, the heart of the winter season. Several bottles of cognac were required to persuade the rallway foreman that a flat car was available for our Land Rover's journey over the pass. With

everything arranged, we boarded the guards' van, a sooty windowless box car with a smokey wood stove. During our 36-hour crossing our friendly Argentine engine driver stopped the train on several occasions for us to take his picture against some new background of rock and snow.

The Atacama Desert of northern Chile reminded us of our Sahara crossing completed four short months earlier. A series of flat tyres, caused by the nails remaining from deserted and rotting wooden shacks (relics of more prosperous days in the nitrate fields), made the corrugated roads in this area seem even less pleasant.

Lake Titicaca at 12,200 feet, was once a major centre of the Inca To reach the vast alti-plane on which the lake lies, we had once again to climb into the Andes, this time on a steep gravel road which wound past herds of llamas and through picturesque terraced villages. All native women in Bolivia wear bowler hats, a custom begun many years ago by an enterprising Italian hat maker. These hats, which may be of any colour or size—(the size is not necessarily related to 'the wearer's head dimension), together with the brilliant colouring of the skirts and petticoats which the women wear, make them among the most attractive looking people in the world. Their markets, filled with bottles and a curious variety of foods and herbs, are particularly interesting. The bottles are bought to contain alcohol which is home-distilled for use on any of the 140 odd official holidays celebrated with great enthusiasm during the year.

Often travelling near old Inca roads, we motored northward into Peru at altitudes which varied, and the variation provided some difficult adjustments, as it ranged from six to fourteen thousand feet. From Cuzco, ancient Inca capital, the road drops down to Lima on the coast. Here the great influence of the United States was apparent from the vast supermarkets and the shouts of "Hi" and "O.K." even among the natives.

In Ecuador, that sleepy little country with atrocious roads, we broke our 12th and 13th rear spring leaves. Luckily we were never without spare springs, several of which we had borrowed from Land Rovers which had been misused and deserted by the police in North Africa. Here also we spent our first, and last, night in jail—for arriving between countries after the second border had officially closed. We will never forget Ecuador!

The Pan-American "highway" will someday run through Colombia and into Panama. As yet however, no connecting road exists be tween these two countries so that motorists must ship their vehicles by sea. Our Land Rover was shipped

from Cartagena which we reached by road, while we ourselves had the luxury of a flight to the capital of Costa Rica, San Jose.

Picking up the car, we pushed northward through Central America. Border posts between countries remained open officially for about five hours each day, and all formalities could be completed outside these hours (which were unpredictable) only with the assistance of apparently arbitrary amounts of U.S. dollars. On one occasion we camped for about 15 hours on a border, waiting for the time when the crossing could be completed without bribes. One must have patience in Latin America!

Mexico City, with its attention to music, art and drama, as well as to architecture, seems designed for the tourist. Since Mexico derives over one-quarter of its income from foreign visitors each year, it is just possible that this aspect is indeed emphasized. Their roads are wide, well paved and well maintained, and we lost no time in travelling north to the U.S. border at El Paso.

It was with sudden relief that we heard the slow drawl of the Texan customs officer, and realized that we could once again talk easily and be understood. The United States, with its lines of neon-lit motels, jumped abruptly out to greet us, and our pocket-books. Now back in the hazards of high-speed freeways and blitzed by propaganda on radiation and nuclear war, we wondered whether the simple African native. sitting in the shade of his thatch shelter, doing absolutely nothing all his life, was so badly off after all.

I.S.G.

IMPRESSIONS FROM WALES—by R. P. D. Round, 1960 (#6)

(Robin Peter Douglas Round is a 1960 Group "B" Fellow. He graduated at the University of British Columbia in 1957 and for the next three years was with the British Columbia Power Commission. The first year of his Fellowship was spent with Freeman Fox & Partners, Consulting Engineers, on a hydro-electric scheme in N. Wales. For his second year, he is taking the D.I.C. hydro-power course at the Imperial College of Science and Technology, London).

The town of Blaenau Ffestiniog could definitely not be referred to as the "Brightest Spot in Britain". In fact, after a most pleasant railway trip along the north coast of Wales, and then south along the winding and picturesque Corwin

Valley, when the train entered a two mile tunnel and emerged at Blaenau, I wasn't really certain we weren't still in the tunnel. The mountains at Blaenau have been turned inside out by the slaving miners of the past hundred years or more, giving an impressive but very bleak tone to the surrounding countryside. Photographs of the gray road, gray slate walls, gray slate houses, gray slate roofs, gray slate mountains with no sign of trees, and gray skies, are impossible to definitely identify as "Colour" or "Bl ack and White".

I was actually quite relieved when the driver who met me at the station informed me I would be staying at a residence three miles south—a large Elizabethan manor in the Vale of Ffestiniog. Plas Dol-y-moch (Palace in the meadow of the Woods!) is set at the base of the Moelwyn Range of mountains, with a "Good Fishing" stream running through the front garden, and contains some 25 rooms including a lounge with TV, a games room, and electrically heated, thermostat-controlled bedrooms. The meals, prepared by a jovialWelsh housekeeper, were excellent.

There were five engineers in residence; an Englishman, an Irishman, a Ceylonesean East Indian, and now a Canadian. However, we were all definitely foreigners in this part of the country, where English is spoken in the villages only as a last resort. School lessons and church services are all in Welsh, but I have dIscovered one church where the service is in English and the hymns are sung in Welsh and English simultaneously. After trying one verse in English I found that competing with the Hi Fi, Stereophonic resonant voices of the Welsh singing in their native tongue was rather futile, to say the least.

Working on the premise "If you can't fight' em, join 'em", I began listening to the BBC lessons in Welsh and after six lessons, discovered that with a mouth full of marshmallows and a slight twitch, I would quite fluently master phrases such as "Mae'r ynty ardan" (the back-house is on fire), but found great difficulty working them into a conversation! Another relatively simple phrase that is a "must" is "Mae'n bwrw glaw", (It is raining) and this can be used any day, at any time of the day! The weather forecaster in Blaenau has been wrong only once while I was there. That day (In future, to be remembered in the annals of Blaenau history as the "Day of the Sun"), I set out on an attempt to scale a 2,500 foot "giant" in back of Dol-y-moch. Having been told, the "walk" should take about 3 hours. I left home about 2 p.m. hoping to be back before 5 p.m. and darkness. By 4 p.m. I had barely reached the base of the final assault, but with a gallant, superhuman effort, spurred on by dreams of being knighted like Sir Edmund Hillary and planting the Canadian flag on the summit, on reaching said summit I discovered three Welsh nationalIsts in the form of rather bored-looking sheep, had already

claimed squatters' rights there. Dejectedly but rather hastily, I set out for home, and be fore long came upon a river that de finitely wasn't there on the way up. After a few moments of intense deliberation, I came to the shattering conclusion that (a) I didn't know where I was, and (b) it was dark. The eerie wail of a screech owl decided my next course of action, and at a Herb Elliot pace, I began thrashing and stumbling through the dark underbrush, guided by the "pleasant murmur of this lovely country stream." Four hours later I arrived home, soaked, scarred and swearing, in time to catch "Guides to Travelling Wales" on the TV.

The Ffestiniog Pumped Storage Project (incidentally the largest of its kind in the world) is at a very interesting stage of construction. The project involves a buttress dam, two 600 foot shafts, four 3,800 foot tunnels, a lower gravity dam and a power station housing four 75,000 kw units and four 105,000 hp pumps. Working with Freeman, Fox and Partners, major consultants for the Job, was most satisfactory.

R. P. D. R.

SLAVE MART-by C. M. Woodside, 1960 (#6)

(Charles Murray Woodside is a 1960 Fellow from the University of Toronto. He is spending the two years of his Fellowship on research into automatic control systems at the University of Cambridge).

A scream eddies up and is lost in the shouting, and two dark, robed figures ran, hurrying a girl, a white girl, through the crowd, while a third tussles with a man obviously bent on rescue. The swirling crowd, taking no notice of the event, covers them from sight. Then the three sinister figures re-appear and are lost in the throngs. The square is filled with shouting, music from native players in the opposite corner, peddlers, shouting their wares and accosting the knots of pleasure-seekers, everywhere beggars stopping the better-dressed, and sunlight, brightening the faces and the loud sounds.

Suddenly the crowd turns and surges to this side of the square, and more people come tumbling out of the dirty narrow streets, and all gather around a platform erected in front of the miserable building where sits the local government. A truly imposing fellow on this platform, tall, with a fierce look, a scarred chin, and a coiled whip in his right hand, comes to the front followed by two dirty-looking toughs bringing the girl I had seen earlier. Those in front shout out their

appreciation while at the back necks are craned to see. Beside me I notice a pickpocket sidling up to his victim but my eyes are drawn back to the lovely vision on the platform. What grace! What breeding! What a perfect example of English maidenhood in this hideous place! The Auction began.

"Look well, you men!" It was the devil with the whip talking. "It is a rare beauty! You there, what will you bid? and he pointed to the nearest onlooker with his whip. Then first bid rang out, "Sixpence!" And the accent was Cambridge, the place was the market square, in front of the Guildhall, the Arabs were Christ's College men dressed in their bedsheets and window-curtains, and the occasion was Poppy Day, raising money by a hundred means and making a good carnival for all at the same time.

C. M. H.

Post Grad Study in Canada and in the UK—by S. M. Lyle 1960 (#7)

(Seaforth MacCullum Lyle is a 1960 Group "A" Fellow from McGill University, Montreal. He spent his Fellowship on research into automatic controls at the Imperial College of Science & Technology where he became the first overseas student to be elected President of the College Union.)

One subject that often arose in conversations I had with other Canadians in England was the difference between post-graduate studies in Canada and the United Kingdom. When Mr. Palmby suggested that this subject might make a worthwhile topic for this News Letter I immediately agreed. To acquire a general background, I approached Fellows and friends who have studied at different colleges and universities in both Canada and Great Britain.

It is well-known that the post-graduate systems of these two countries differ. The general Canadian scheme for a Master's Degree consists of a mixture of course and research work, whereas English universities require only. the latter. A Ph. D. in Canada usually involves a student in language examinations and further technical courses after his Master's Degree; in England a more elaborate project is the essence of a Ph.D. The fact that course work is not part of a higher degree in England does not mean that courses are not given. To the contrary, they are, and usually with an air of confidence not found as often as it should in Canadian universities. Courses in English universities are administered differently in that there is no registration for a particular course and no examination. The attendance at these courses is usually fairly consistent and since the courses are

not terminated by examinations, classes do not suffer from examination fallout and the resulting decrease in questions and discussions. So in general this part of the English research system is more advantageous than the Canadian because it allows the student to vary courses at his will. It is possible for him to go to a series of lectures at any time which will assist him on his project or fill in background he suddenly feels he requires. The fact that he does not have to worry about examinations permits this freedom of selection, and nearly all students take advantage of this arrangement. It also encourages students to attend or organise seminar sessions on a scale both in quality and quantity not usually attempted by Canadian university students, who are involved in completing their courses by examination.

Just as course arrangements are different, so is the approach to students' research projects. Research systems in English colleges and universities leave much to be desired. Naturally exceptions do exist, but in general the English system relies very heavily on personal relationships between students and research supervisors. There is very little chance that other members of staff will take an interest in students working in other sections of the same department, and other staff members do not encourage or assist students not assigned to them. Thus Departments tend to become sectionalized with very little communication, either academic or social, amongst their sections. If the professor or research supervisor of one of the sections is a very busy person, or possibly just hard to get along with, the students in that section have very little hope of receiving much assistance on their project from any source. Dependency on close co-operation between the student and his supervisor is not as predominant in Canada due to, among other reasons, the standardizing influence of graduate faculties and better departmental communication. The English scheme usually does not embody such administrative arrangements so research can easily be hindered by poor student-supervisor relationships.

It is this tendency to sectionalization that the Canadian encounters to a marked degree in Great Britain. The individual Englishman seeks privacy in his everyday life and this, unfortunately, shows in university and college laboratories. Equipment which in some colleges is in limited supply at best is made more difficult to obtain because of the insistence of staffs to lock it away without distributing keys to postgraduate students. This fault is amplified by the tendency of students and colleges to make research Just a 9 a.m. to 5 p.m. proposition and to operate other facilities in a manner that makes progress in a project unnecessarily slow.

Thus research work becomes only what a student can make of it. It can be excellent training for learning how to use one's own initiative but extremely frustrating when it is obvious that the irrational mannerisms of some staff members can greatly affect the rate of progress and usefulness of a project.

To discuss the many differences between post-graduate studies in Canada and Great Britain completely and to explain their resulting implications to the student would take many more pages than there is space for in this book. The comments above are of a general nature but I feel they summarize situations as they exist in universities and colleges in the two countries.

Stereotypes And Impressions—by Diane and Donald Woods, 1961 (#7)

(Donald Robert Woods is a 1961 Group A Fellow from Queen's University, Kingston, Ontario. He obtained his Doctorate in chemical engineering at the University of Wisconsin in 1961. He is spending the first 16 months of his Fellowship with Distillers, Ltd., on petrochemicals in Hull and plastics in Barry, South Wales. The final 8 months will be spent on chemical processes with Unilever, Ltd., at Port Sunlight. His wife, Diane, is a graduate of the University of California, 1959 and obtained her Master's degree in foods and nutrition from the University of Wisconsin. She held a teaching post in Hull and has an office appointment with Distillers, Ltd., in South Wales).

As newcomers to a strange country, we had many stereotypes and preconceived notions of what we would find in Great Britain. Here are some of them together with the impressions we have after living here for a year.

An Englishman was a chap with a bowler, umbrella, vest (waistc'oa't) and all; his vocabulary included "chaps", "pip pip" and "bloody". He was impeccably dressed and aloof, was never excited and was an example of politeness. We found that the man from The City dressed this way, but the language usage was out of character. "Bloody" is not used in polite, genteel company. We've not seen a bowler worn outside of London. The standard of attire, nevertheless, was high in England: white shirt and tie were worn when we would have thought sport shirt and slacks appropriate; suitcoats, when windbreakers would have been the Canadian attire. Paradoxically, there was no uniformity of dress among the members of a touring symphony orchestra as we would expect to see at home. The people of South Wales, whom we have met, are more casual in their dress than the English seem to be.

On the subject of speech, three things caught our attention: the wide variety of accent that varies from region to region, the preciseness of word usage and the

quiet tones in which people converse. An Englishman rarely rambles and shuns hackneyed expressions and meaningless clichés. The North American chatters loudly compared to a Britisher. For example, we noticed, while waiting for a parade in London, that although all of the gathered people were talking nothing more than a whisper reached us.

Did the English match the stereotype we had of politeness? Yes and no. It was common for a man to get up from the table in a restaurant, head for the door and leave his wife to fend for herself.

We heard before we came of the conservative, not easily excited people. We heard of tradition, pride and efficiency. We heard of a country that was "between 5 and 10 years behind the times": no refrigerators, no central heating since the Romans, gas lights, etc.

The image of the aloof, reserved Englishman was modified to include the excited crowd watching a Wigan - Hull Kingston Rovers rugby match or some most memorable evenings playing party games and singing. The overt expressions of love that are such a common sight along the streets or in the parks do not convey a consistent picture of conservative aloof young people.

Tradition and behind the times? The stone, hundredweight and long ton seem confusing carry overs from an era past, yet, paradoxically, the British thermal unit has given way to the centigrade pound unit, and degrees Fahrenheit to degrees centigrade. The carpenter-undertaker combination of occupations and the hand rung church bells would point to bygone years. Few refrigerators, the luxury of central heating and of owning a car might further point to a nation that is "behind the times". Some of these things can be explained. It was not until we sampled the weather that we saw that it was just cold enough to wish we had central heating to take the edge off but not really cold enough to justify it. It was just cool enough in the summer to get by without the expense of refrigeration. Night city driving with only parking lights appeared old fashioned, but night lights on parked cars are of great help in thick pea-soup fog. While there may be a strong hesitancy to accept the latest gimmicks, the impression that the nation is "5 to 10 years behind the times" does not seem to be correct.

The weather was wetter than we expected: so variable in a very short period of time; with damp and frequent drizzles. The moderateness of the climate temperature- wise helped to clarify the lack of central heating, of refrigerators, and the schoolboys in short pants the year round. While we missed hot summers and zero Canadian winters, there was the redeeming feature of year round greenness of the country, the lush gardens, the November roses.

We had forgotten how much Britain suffered during the war. The bomb rubble in London, Hull, Coventry or Exeter; the concrete tank traps and block houses along the coast; the stories of air raids and of the complete removal of every signpost or means of identification across the country were grim reminders.

Concerning the country itself, we expected, of course, the scale to be smaller than in Canada. However, the smaller scale was deceiving for although there were short distances between populated areas, the country seems larger than we expected because of the difficulty in driving 250 miles in one day as compared with the 500 miles we could cover in Canada. We were pleasantly surprised by the variety of countryside there is in these compact Islands. This compactness of the country did show itself through the utilization of every piece of land, the wise specification of green belt areas, the search for privacy using high walls and hedges.

The general pace of life is slightly more leisurely than we had imagined. Beginning the work day at 9 a.m., fewer stores and shops open in the evening or on Sunday, few lorries on the road at night, the inability to get away from a hotel in the morning much before 8.30 because breakfast is not served until 8—many small things gave us an impression of a more relaxed way of life than in Canada.

Three strong images of England were implanted in us: "bobbies", pubs and the Englishman and his dog. How did these three images compare with experience? The "bobbies" were well informed gentlemen, held in high esteem by young and old alike and able to carry out their assignments unarmed.

The pubs play an important part in the community life. A night out at the pub for you and the Mrs. is not only respectable, but it is quite the thing to do. The pub atmosphere cannot be adequately described because each is a world unto itself.

Animals play a much more important part in the Englishman's life than we found in Canada. The dog, especially, is in many cases part of the family. We saw him, for example, riding in the front seat of the car while the women were relegated to the back seat. Besides the dog, other animals and sports are close to the hearts of many that we met: beagling, horse racing and greyhound racing, horseback riding, and point to point racing.

Concerning education we expected to find an excellent training in fundamentals given to well-behaved, polite students. While the fundamentals are stressed, the mastery of them did not live up to expectation. The polite well-behaved students presented discipline problems comparable to what one would expect in Canada. Nevertheless, full use was made of available facilities. School organized trips

took children travelling where they might not have gone if they had to depend upon the family. Oftentimes we shared a museum showcase with a little boy with a questionnaire in his hand. High calibre educational books for children are available at pittances compared to their North American counterparts, and first rate magazines come monthly or weekly. High schools students often make field trips to special camps for a fortnight of intensive study of a subject such as botany or geography.

We had heard before we came that the general populace was well up on things, and that one could have a stimulating discussion with the dustman. While we have not talked to many dustmen, we did find that the general populace was knowledgeable on a wide variety of topics. This might account for our discovery that the art of conversation certainly is not lost here. At many of the parties we attended anticipating an evening of dancing, we found small groups would form and the evening was dominated by conversation.

Our stereotype of the British newspapers was Incorrect. We expected quality with extensive coverage of Commonwealth and Canadian news. While there were about a half dozen high quality papers, the coverage of Commonwealth activities fell below anticipation. The BBC radio programs were much better than we had imagined: the wide variety from Network Three to the Light, the Promenade Concerts, the "Brush Up" or "Teach Yourself" Courses, the plays and discussions. Amazed and disappointed were we at the number and quality of the North American TV programmes that find their way over here. We expected something other than "Bonanza" and "Hawaiian Eye".

In the nationalization of telephones, railways and health service we found both advantages and disadvantages. The corporation owned telephones of Hull operated at one half the cost of the national system and offered such extras as a direct line to Father Christmas in the festive season and homemaking advice. The reluctance of British Railway clerks to give us the cost of rail shipment, the rudeness of a London ticket clerk, the shocking condition of a wooden crate when it arrived in Hull, all gave us the impression that the BR do not care if the customer is satisfied or not. Nevertheless, the transportation system is extensive, runs fairly smoothly and on time.

The National Health Service had its moments of greatness and mostly its periods of rejection in our minds. Great is the advantage of no direct charge for medical services, the amazingly low costs of dentists and opticians, the minimal cost of prescriptions to say nothing of the hospitalization savings. But how can one adjust to the "So you're sick, what's new?" attitude prevalent in one hospital we saw? The attitude of some of the doctors and the sisters, the lack of ward

discipline and the lack of what we sometimes jokingly refer to as "tender loving care" were a shock to us and made us hope that what we saw was not prevalent in other hospitals.

The quality and efficiency of the civil service officials with whom we have come in contact has been very high and made us hope that Canada is as fortunate in this respect.

The stereotypes that we found the British people had of North America were very dominated by TV and movies. Most shocking was the conviction that everyone at home either lives in the cocktail-party-new-flashy-car whirlwind or else may be roaming the range. There is the definite opinion that North American cars fall apart after one year of service.

This feeling of poor quality of automobiles has been applied to many other products. A concern that women's fashions are not as up-to-date here as in North America was often voiced. Time and time again reference was made to the fast pace of life that exists there—ulcers, doing business over sandwich lunches in offices, etc.

In retrospect, our present opinions and impressions of Britain are for the most part different from those that we held before we came. While these impressions are strongly influenced by the areas seen and the people we met, nevertheless, they come from having lived in the country. This has enabled us in some small way to look at life through British eyes instead of as hurried tourists who usually return home with their preconceived stereotypes substantiated. Living here has helped us to establish the sources of our stereotypes and those held by the British, and it has brought home to us the important part which radio, movies, newspaper advertisements and television play in establishing stereotypes of foreign peoples and lands.

D. and D. Woods

"F I T B A" (Glasgow style!)—by W. Robert Tucker, 1960 (#8)

(William Robert Tucker is a 1960 Group "A" Fellow from McGill University, Montreal. He spent his first year at the D.S.I.R. National Engineering Laboratory, East Kilbride, Glasgow and the second at the University of Glasgow where he obtained his Master's degree.)

They had managed to do it—I had been talked out of my Saturday game of golf! Where was I going? For anyone in and around Glasgow that was a silly question.

Naturally, I was off to witness the great Glasgow spectacle—a clash between the two football (pardon) soccer giants of the Scottish First Division: Glasgow Rangers of Ibrox versus their Parkhead rivals, the Glasgow Celtic. "You're no neutral! You're supporting the boys in blue!" my friends insisted.

Obviously my may-the-best-team-win approach to the game had not gone over too well! Didn't really matter anyway—the Glasgow crowd had me categorized. The fact that I wasn't an R.C. and also didn't happen to own a "stitch" of green clothing automatically "chalked me up" as a supporter of the Ibrox club.

We were away! Storming out of East Kilbride in a blue (What other colour is there?) van, we hastened to the rendez-vous point—a small pub on the outskirts of Glasgow. Here the group assembled; all sporting the same—coloured scarves and sounding the same verbal "in practice" of the rival team and its supporters. (And how a few pints of "heavy" helped to confirm the "unbiased" predictions of the final score!) But no time to waste! It wasn't long before the twelve "follow-follow" boys (l) each with his "carry-oots"(2) were tucked safely into the van and to the accompaniment of a riotous Chorus, we again rejoined the 85,000 fanatics converging on Ibrox stadium.

To enter the stadium to many was a relief, and as I rolled up my trousers and walked gingerly to higher ground, I got my first look at the teams who, that day, were to battle for supremacy. In contrast to our sport spectacles, there are few reserved places, and the majority of the crowd stand throughout the game.

Well established in the Ranger enclosure, I watched the game with interest—while at the same time "absorbed" all that took place around me. As the game progressed, and the "carry-oots" dwindled, the underlying rivalry between the opposing supporters was felt to increase: "border" disputes were common, verbal disputes frequent and unflattering, fists and beer-cans flew with little provocation! I had the feeling of a visitor to a munitions factory where all the employees were chain-smokers!

The final whistle blew—the game was over, and an excellent game of football it had been. But alas—it had ended in a draw! Supremacy had not been established on the field, biased predictions had proved inaccurate on both Sides, the "carry-oots" were finished—NOBODY seemed satisfied with the outcome!

As we left the stadium to the tune of wind-blown beer-cans, it was obvious that the afternoon's entertainment was far from over. Before arriving back to the van, we had seen three good fights, a bottle being hurled from a third-floor tenement window at a pair of drunken Celtic supporters, and I had, as I now realize, the somewhat dubious honour of being saluted by a group of Celtic supporters with

a strange "V" (for victory) sign. At the time, it did seem odd—I was certain the game had ended in a draw!

As my Ranger friends and I headed for East Kilbride, I couldn't help feeling that the day had been a tremendous experience—an enjoyable, yet risky one at that! However, it wasn't until I was on my way back to Canada on the "Sylvania" that I truly appreciated my experience. Following the "Gala" Dinner on board, at which we had received cardboard party hats, I met a Glaswegian sitting in the lounge with a bottle of beer planted solidly in his well-shattered hat!

"Coming from Glasgow, you'll appreciate this," he said pointing to the hat. "I've just come home from a Rangers-Celtic match!" He couldn't have greeted me more warmly!

1. Ardent fans who follow their team everywhere, 2. Hip bottle

Reflections on the Athlone Fellowship Scheme – by F. E. Collins, 1960 (#8)

(Frank Edward Collins is a 1960 Group "A" Fellow from the University of Toronto. He spent his first year on Operational Research at the University of Birmingham, where he obtained his Masters degree, and the second on the Business Administration Course at the London School of Economics.)

When I submitted the final report in connection with my Fellowship last year, I had in mind writing further at some future date regarding my impressions of the Athlone Fellowships Scheme. I felt then that the passage of a little time might serve to temper some of the ideas so fresh in my mind of the two year period of training which I was just completing.

A short time ago I was prompted to think of these things when I attended a reception given for the Athlone Fellows in Ontario by Mr. Wilby, Principal British Trade Commissioner in Toronto. This was an entirely pleasant occasion, affording an opportunity for reunion of old friends, and of meeting the new Athlone Fellows.

When I recall my own stay in England, which ended less than a year ago, I do so with the deep satisfaction that comes from having participated in a postgraduate training system which is second to none. I feel that the excellence of my particular programme contributed in a major fashion to the success of my Fellowship. This programme comprised the M.Sc. Operational Research course at the University of Birmingham, the latter involving several months of project work at the Steel Company of Wales Limited, and finally a year at the London

School of Economics under Professor Sir Arnold Plant. Both academic sessions were valuable to me, though in different ways. The work at Birmingham was highly rigorous, and comprehensive in the speciality of Operational Research. The work at L.S.E., was broader in scope, and though somewhat less demanding in academic discipline, it afforded time for deeper thought on some of the more important issues underlying the economics of business enterprise. These two academic undertakings complemented each other in a manner which was most satisfactory at the time, and very useful now in my present position with K.C.S. Limited, a firm of Management and Technical Consultants.

Recently I have been giving thought to some aspects of the Fellowship Scheme which seem to me to be of importance in ensuring that the tenure of a Fellowship be of maximum value to both the recipient and the Board of Trade as the donor. First, I feel that preference should be given to candidates who can state, in fairly certain terms, what programme they wish to follow, and who can support their choice with facts and explanations. Furthermore, perhaps more emphasis could be placed in choosing candidates who show the most promise of being prepared to fulfill the objectives of the scheme after returning to Canada.

Once the candidate has been accepted as a Fellow, the Board of Trade seem to be most effective in instituting the programmes selected by the Fellows. This latter service is important and well appreciated. In this connection, candidates should be made aware of programmes which would be unacceptable to the Athlone Fellowships Committee, so that once arriving in England, a Fellow will cause as little trouble as possible in taking up his work.

Finally, the opportunities open to Athlone Fellows for travel, both in the United Kingdom and on the Continent of Europe, constitute a valuable consideration to a young man from North America. I myself was fortunate enough to make many trips within the United Kingdom, together with five trips to the Continent. Of the latter, the last and longest was made after the tenure of my Fellowship was completed, and included a visit to Russia and other countries in the Soviet bloc. The prerogative of this type of travel I think is important, and one which should be preserved in the scheme.

One final aspect of the Athlone Fellowships system which impresses me as being particularly important is the opportunity for participating in British life in general. Living in Britain among British people is a unique and enlightening experience for a North American, and a valuable one. One way of enjoying this experience to the full is to participate in British sports. I myself was fortunate in being able to row with the L.S.E., eight oared crew. This was an experience which I look back upon with the greatest satisfaction, and perhaps as the highlight of

my stay in England. In my mind no sportsmanship in the world excels that of the British, and in this regard no sport compares with the discipline of rowing. I would highly recommend that all Athlone Fellows to take up some British sport, and particularly rowing.

In concluding, I extend to the Athlone Fellowships Managing Committee, the Board of Trade, and to the British people at large my deep gratitude for my two years in England and what they have brought to me. I can hardly say how much all these things mean to me.

F\E. C.

A Medical Scheme—Lucky Fellow!—by R. N. Stone, 1961 (#8)

(Roger Stone" is a 1961 Group "A" Fellow from the University of British Columbia. He spent his Fellowship at Imperial College on automatic control systems and electronic instrumentation.)

In the hope that it will be of interest to present and prospective future Fellows, I should like to describe in this article the way, which I believe is fairly unique, in which I have found myself spending the two years of my Athlone Fellowship in the U.K. I shall try to show that, from the points of view both of the Fellow and of the Board of Trade, the type of programme involved is very worthwhile.

I was one of the 1961 group, with an Electrical Engineering degree from U.B.C. My original programme called for a year at Imperial College and a year in industry. I therefore found myself at Imperial College in the autumn of 1961, and gravitated to Dr. Sayers "Instrumentation" laboratory, this being my main subject of interest.

Around the same time, Dr. Dennis Hill, Senior Lecturer in Physics at the Royal College of Surgeons of England, applied successfully to the Royal Society of London for a grant from their Paul Instrument Fund, to finance an investigation of the possibility of applying modern optical and electronic techniques to the problem of fast non-destructive gas analysis by the infra-red absorption method. Such analysis is required in research on anesthetics and respiratory physiology.

Around Christmas time, Dr. Hill applied, again successfully, to Professor Tustin of Imperial College for a graduate student of instrumentation to come and work with him, this work to be the subject of the student's M.Sc. (Eng) Thesis. The project and I seemed to suit each other, and so it came about that I found myself spending a portion of my time at the Royal College of Surgeons.

The technique of quick-response quantitative gas analysis by monitoring of the absorption of infra-red radiation in the waveband characteristic of the gas concerned, has long been tied to the device which first made the method practicable, namely the Luft detector. This device was invented in Germany during the last war. While its optical and electrical properties are fairly satisfactory for the purpose, the Luft detector is by its nature a vibration pickup. Hence an instrument built around one is useless for field studies, such as are of interest to the R.A.F. who have had pilots black out due (it is suspected) to hyperventilation, and to the R.N. who would like to do respiratory studies on divers. The Luft detector has other drawbacks. Hence the desirability of using some of the devices upon which much research and development has been conducted in recent years for military applications (particularly heat seeking missilery) such as the Indium antimonide photoconductive cell, the multi-layer optical interference filter, and for that matter the transistor, which is still in process of introduction into medical instrumentation.

Looking at the project from the other end, some interesting problems were posed by the operational requirements for a gas analyser which would be ideal for the applications envisaged. These are that it should be explosion-proof, for operation in the presence of explosive anesthetic agents; interference-proof, for operation near diathermy and other equipment; layman-proof, for operation by users who know no electronics and have no time to read instruction books; self-compensating for as many as possible of the phenomena which could cause artifacts in the output, such as the very large thermal drift of detector sensitivity; and so on.

While it is not relevant here to comment upon the success or failure of this particular project, it should be said that it proved to be a highly interesting one, providing quite diversified experience of some of the concepts, problems etc. of electronic instrumentation, and in particular of the fascinating task of trying to find the most compatible form of combination of electronics with optics and mechanics to give all the required features, with reliability and at reasonable cost. For the project as a whole was not merely an academic exercise, but an attempt to show that the devices and techniques could yield an analyser which could be produced and sold.

However, the feature of this programme which I believe to be fairly unique was the amount and breadth of contact, both by correspondence and personal visits, with manufacturers (and mainly with their technical departments) as well as Government, military and academic establishments. The same contact (and personal contacts, for that matter) could probably be made in no better way, even

under the Athlone scheme. For, if one is with a commercial organisation, clearly there is little question of getting a guided tour of competitors development laboratories; and for a graduate student at a university, outside visits when they are available tend to be in the nature of general-interest tours of which, in my experience, very little is remembered afterwards. The medical application is probably the telling factor. The name of (for example) the Royal College of Surgeons is a key which opens many doors which might otherwise be politely but firmly closed, (or perhaps in some cases just closed).

There are of course many attractions in bio-medical instrumentation as a field of permanent employment. Working with medical research people is stimulating and absorbing, and their appreciation for the solution to the simplest of measurement problems is really quite gratifying. Some of the measurement and data reduction problems are in fact challenging and very interesting. Further, I can report from first-hand observation that there is a crying need, at least in England, for engineering contributions and cooperation at a professional level in this field.

In this field, one need not be concerned solely with research. An increasing number of instrument and computer companies in the U.K. are taking an interest in medical applications, and opening new medical departments. Partly as a result of the gas analyser project, two firms whose production of detectors and filters respectively has hitherto been earmarked solely for military purposes, have considered offering their items commercially.

My own programme has led directly to a short term of employment with Messrs. Grubb Parsons Ltd. of Newcastle-upon-Tyne. This, I hope, will provide a bit of first hand industrial experience to round off what has been a truly educational programme.

In conclusion, then, let me point out how the interests of everyone involved in this type of programme are well looked after. The Fellow sees and learns somewhat (perhaps a great deal) more than he otherwise might; the Board of Trade sees the Fellow becoming reasonably acquainted with a wide range of British companies, some of them competitors of each other; and the medical people have, without the expense of his salary, the services of a graduate engineer, albeit an inexperienced one but possessed perhaps of more originality of approach than many older men, who can apply his brand new knowledge to one or two of the many fascinating problems of medical instrumentation.

R.H.S.

Scotland at Leisure – by R. G. P. Tischuk, 1962 (#8)

(Roy Tischuk is a 1962 Group "A" Fellow from the University of New Brunswick. He spent his first year on fluid mechanics at the D.S.I.R. National Engineering Laboratory, East Kilbride, Glasgow, and is currently taking the thermodynamics course at the University of Birmingham).

Four out of forty Athlones in 1962 went to Scotland under the Fellowship scheme. Only some 23 out of 456 Fellows have studied or worked in Scotland since the scheme was originated in 1951. It would be unwise to take these figures as a conclusive guide to what this "wee" country has to offer. Academic standards and university courses may be easily obtained from published literature, but this article attempts to show the brighter side of bonnie Scotland—at leisure.

There were no wall-sized billboards imploring me to come skiing in the Highlands. In fact, no concrete evidence that snow even existed up there. Just a certain week in January when a few friends dropped the subject of football and began planning ski-weekends. In need of skis, I joined the Lab. Ski-Club and found myself with the duty of patching up some very dilapidated equipment with questionable enthusiasm. But true enough, "Ye canny have everything for five bob!" So was the start of a hilarious, diversified ski season which took us throughout the West and Central Highlands in sun, rain, and blizzards.

A Scot is always optimistic about this fickle weather, probably because it is only a secondary item on his agenda. One Saturday when Glasgow was drizzly and overcast, the Campsie Fells just eight miles north were sunny and blanketed with beautiful snow. The opposite of this was nonetheless very common. Sometimes the snow seemed to vanish as we approached the ski-slopes. Whatever the outcome, it was always very amazing to discover how much could be gotten from so little when nothing was expected.

Booking in advance is a necessity and usually means that you must set off on an excursion regardless of conditions, merely hoping for the best. On one occasion, heavy snowdrifts had blocked the direct 150-mile route to a northern resort in the Grampians and so we decided to try our luck on a detour route up the West Coast, adding 80 miles to the journey.

During the twelve hours in transit we encountered howling drifts on the Rannoch Moors, lashing rain in Glencoe, a green sunny valley completely void of snow around Loch Leven, and finally some fine winter weather in an area strongly resembling the Laurentians. If you have ever been baffled by distances, you can then try to imagine this 400-mile circular tour during which the famous Ben Nevis (4400 ft) would be continually in view on a clear day.

The hardships are all forgotten when the primary object is finally achieved. You forget there was no accommodation left in the small ski village and that you've had to sleep in a moth-eaten tent on the back steps of a hotel. You forget the gruesome daily climb from the car park to the bottom of the ski-lifts where a half-mile queue has already beaten you to it. And at the end of it all, you wonder how you possibly survived on a week of canned mince and pints of bitter. There is one consolation however—that knowing grin from your mates which means you've come one step closer to being a hardy Scat!

Now for the summer sport. Is there much water-skiing in Scotland and is it necessary to wear a rubber suit? Well, yes and no. Within a 30 mile radius of Glasgow alone there are no less than two dozen boat anchorages on numerous 'lochs'. The sport is enjoyed mostly by clubs whose members have pooled their resources to provide equipment. Any of these clubs will readily welcome you if you display a keen interest. As for wearing a rubber suit, I need only say—It helps.

It is no exaggeration when they say Scotland is the home of boating and golf. The climate on the West coast allows you to golf the year round amid scenery which some of us are lucky to see during a fortnight's holiday. An hour's drive will find you in Ayrshire, the stomping grounds of Robbie Burns; or in a quaint fishing village on either coast; or in the Trossachs whose verdure is mingled with purple and white heather; or the Clyde shipyards where some of the biggest ships and most beautiful small craft have been built. It's all on your doorstep if you care to see it, and you should. Some of the scenery is sometimes over-rated but a Scot's pride is not to be ignored. He'll miss no opportunity to impress you with the countryside and in more precise terms than you could describe your own back garden.

"ea: canny, but ca i awa". Very good advice, for it means that one should proceed but with a cautious step. Countless other expressions like this one reflect the nature of bonnie Scotland. If Scotland's greatest export is people, she has a splendid way of sending them off, for as you drive out across the border several road signs invite you to "have a whisky afore ye go!" and "Haste ye back." I for one certainly will.

R.G.P. T

Reflections on the North of England – by Mr. J. L. Crosthwaite, 1962 (#10)

(John Crosthwaite is a 1962 Fellow from the University of Manitoba. He spent the first year of his award on "Steam Turbines" at C. A. Parsons & Co. Ltd. The second year was spent at the University of Birmingham doing Thermodynamics)

'Newcastle-on-Tyne'. What did that conjure up in one's mind? Immediately the expression "like taking coals to Newcastle", and so, with mixed feelings we arrived in 'Geordie-Town' after our week of introduction in London. The Flying Scotsman from London to Edinburgh makes Newcastle its only stop before reaching Scotland and completes this first leg of 272 miles in exactly four hours. At times, speeds of close to 100 m.p.h. are hit and one literally has to hang on to one's seat in the swaying carriages.

A product of The Industrial Revolution, the vigorous rebuilding programme has now dispelled most of the truths or half-truths that still make the "ignorant Southerners" shudder at the thought of this once-great coal mining centre. Much of the great coal mining is gone now, but the resourceful 'Geordies' have turned their skills to some of the finest engineering in the world as we were soon to discover.

A Geordie is a Newcastler—for him there is no other definition, the word 'Englishman" being inadequate, "Scotsman" an affront. He speaks a lingo that is unique and beautiful. A sing-song dialect that no Cockney can rival, it can roughly be described as half-and-half on the Scottish-English accent scale, (but don't tell a Geordie that!). A common sparrow becomes a "Spuggy"; "Way aye manti" denotes affirmation "Ah diven' nah" is "I don't know". "Had away man!" means you're talking rubbish, and you can run, "tappey lappey doon the hill".

History leaps at you from all around Newcastle. The Romans were here, and left a great monument to their skills as engineers: Hadrian's Wall still crawls up and down the hills, zigzagging for more than 80 mlles from the Solway Firth to Wallsend on the North Sea. You can go to Corstopitum and see the remains of a Roman bath-house or walk for miles along The Wall and look out, as no doubt many a Roman sentry did, upon the bleak Northumberland moors—beautiful in autumn under a cloak of purple heather. The Scots came once too often for the Romans, finally smashing through and inflicting bloody massacre on them at Housesteads-on-the-Wall.

Centuries later, the Vikings came and they too left their mark to this day. Many towns have names ending In ".. wyck" or ".. thwaite", Viking names, and if you take a bus ride to the beautiful Lake District you can go to the village of Crosthwaite, near Keswick, which is the only area in which I've never had to spell out for people all eleven letters in my name.

There are a thousand places to see; Flodden Field, where the English finally got lucky and beat the Scots; Bamburgh Castle—dramatic in its setting on the Northumberland coast; or Holy Island where St. Columba introduced Christianity to England and where they still brew authentic English mead from honey, a welcome pick-me- up after the hike of a mile across the sand to reach the island by foot when the tide goes out.

There is more, much more, and the north of England In its long and turbulent history has much to offer. It was a most wonderful year which inevitably drew to a close before all of it could be seen or appreciated.

On a Bicycle Built for Two-by W. R. Tyson, 1961, and his wife (#10)

(Will Tyson is a 1961 Fellow from the University of Toronto. He spent his Fellowship Cambridge University reading Metallurgy and stayed on until 1965 to take a Ph.D.)

"See sunny England!" No doubt some of us wince at the memory of a few days (or few weeks?) of "cloudy with rain or scattered showers" weather. And the climate's really that bad, and this summer my wife and I decided that, instead of joining the annual trek south of the channel in search of sunshine, we'd poke about the pretty little villages, awe-inspiring cathedrals and lonely coasts of this "sceptr'd isle". What's the best way to do that? Why, on a bicycle, of course!

So, one sunny morning in August we set off on our vintage tandem (one can be found hiding in a corner of almost any barn in Cambridgeshire). Our resolve: Canterbury Cornwall or bust.

The country roads of England are ideal for cycling: paved, quiet and picturesque. Fortunately, the motorists prefer the smoky traffic jams of the A roads and so we had the delights of the B roads to ourselves. We thought Kent particularly lovely, the hedges along the roadside draped with morning glories, the grain golden in the August sun, and around each bend always another hop field (Vive la biere anglaise!).

In Canterbury we were impressed by the cathedral, of course, but the city had a delightful surprise in store for us in the little Saxon church of St. Hartin. Augustine worshipped there, and the church boasts the longest continuous history of worship in Christendom. It's a pretty little church, and from the churchyard the view the cathedral at sunset is magnificent.

On our way to Brighton we stopped at the parish church of Etchingham to indulge in a favourite hobby of ours: brass rubbing. It required a peculiar brand

of fanaticism actually enjoy spending two hours crouched on a cold cement floor scribbling away at piece of paper, after cycling forty miles. However, we have a grand souvenir for efforts!

We discovered on our bike that the Sussex Downs actually consist almost entirely of ups. So we were ready for a rest when we arrived at Brighton, where a friend had invited us to stay for a few days.

The next bit of our route was very carefully planned: Chichester, Winchester and Ilsbury were our stopping points—that way we managed to spend every evening in the window of a cathedral. En route to Chichester I found a marked increase In the power output of the back engine; we were forced to travel on a major road and the roar of lorries flying past frightened my wife into pumping furiously, just to get off the road fast as possible! Conversely, cycling past the beautiful scenery elsewhere had the opposite effect: the back half enjoyed herself so immensely that she entirely forgot she was supposed to be working.

From Salisbury we made an evening excursion to Stonehenge, which we found very impressive in the steady drizzle that had developed by the time we got there. We decided, afterwards, that the sight was worth the soaking, but it would've been hard convince us at the time!

We had gorgeous weather at the start of our trip, but, unfortunately after Salisbury we sought refuge on a British Railways baggage car for some stretches of the route. At Plymouth we were drenched merely crossing the harbour; we returned without even leaving the ferry, resigned to taking the train again.

Undaunted, although a little wet, we intrepid travelers finally arrived one evening in Penzance. From there we made an excursion to the north coast and the tip of Cornwall, stopping at Land's End to clamber on the rocks and gaze pensively at Longships Lighthouse. We'd had a thoroughly enjoyable ten days touring in the open air through some of the most beautiful countryside in the world. We'll always remember the friendly pubs, the ancient parish churches, the winding, flower-lined roads and the magnificent cathedrals from Chichester's stocky Norman strength to Salisbury's soaring Gothic beauty.

But, when people cheer us on as we cycle by, we just wish they'd chant something a little more original than "Daisy, Daisy,"

A Wife's Tale—by Betty C. Nitkin, 1962 (#9)

(Betty Nitkin is the wife of *Irving M. Nitkin—a* 1962 Group A Fellow from McGill University. He spent his Fellowship at the University of Cambridge on Structures.)

It is not often that we wives are asked for our opinions, especially here in male dominated Cambridge. Therefore when I was offered this opportunity to say anything I wanted to without interruption. I naturally agreed at once. Perhaps the best thing I could do would be to describe some of my experiences here, especially as a newcomer.

Like most newlyweds. I had decided to work to help meet expenses while my husband studied. So shortly after settling in to our new home. I began to look for a job. My first attempts ended up with my learning a basic economic axiom—the law of supply and demand. I had been contemplating teaching for a time. and thought since I had a degree in one of the sciences. I would like to do sciences in a secondary school. "The education office will embrace me with open arms", I thought. After all, a graduate '•••.••'. Well. they didn't. because there are two things that Cambridge has in abnormal abundance are pubs and research students' wives with degrees (most of whom have teaching qualifications as well, which I don't). I was in supply, but not in demand. Short of moving to Manchester, the next thing I tried was biological research in which I did have experience—over a year of it. The names which I had been given by my boss in Canada proved unprofitable. But, upon looking in the local newspaper one evening I noticed one offered which might suit me. Accordingly I wrote to the address and shortly afterwards received a note asking me to come for an interview. This job was for a laboratory technician in virology. The Interview went as follows, after the appropriate introductions to Dr. B.:

Dr . **B.** 'I understand you have a degree in Biochemistry. Also that you have worked in research recently'.

Me 'That's correct. But I have had little experience in virology itself, although I have taken a half year's course in it'.

Dr. B. ...

Me ...

Dr. B. 'Yes. Well I am doing the following here And the equipment is There are some very eminent people such as ... Is there anything else you would like to know?'

Me: 'Who would I be working for specifically and what would be the pay?'

Dr. B: 'You would work for me only and the pay must be arranged by the super-intendant according to university scales. I'll have a word with him now'.

All this had already taken three-quarters of an hour during which he had done most of the talking. What a change! from a little cog to a big wheel in one revolution. When Dr. B. returned he told me I was being offered 1/- a week more than usual because of my degree. I promised to give him an answer after the week-end when I had had a chance to think it over. On the way out Dr. B. said 'Um er. Uh do you have a family?" "NO", I said. "Nor one in the next year I hope?" asked Dr. B. "No", I said again, explaining our reasons. "Right!" he said (a little doubtfully I thought). 'I hope your answer will be favourable on Monday'.

I accepted this post because it did sound interesting and was quite different to anything I had ever done. A few days later I found myself a new member of the laboratory. During the first hours Dr. B. took me around introducing me to people and things. And then we began the first experiment. At one point I was asked to go get a tin of sterilized "bungs". Now I ask you, what in heaven's name is a "bung"? It's a rubber stopper! Imagine my embarrassment in not knowing a very essential piece of scientific equipment. In the next few minutes I found myself blushing. Do you know what a 'teat' is? It is not what you are thinking. A teat was a rubber bulb commonly used in a pipette. But still, think: If you had been told (very calmly) 'Please hand me the teat'. My first thought was 'So this is why he wanted to know if I had a family?'

As you can well imagine there were yet a few more such embarrassingly confusing incidents. But gradually I began to find my way around and we soon straightened out the language problem.

When one first starts on any new job there is always a certain amount of paper work to be done. It was the same here as well. But what a surprise it was to me to be called to the phone one day to explain the whereabouts of my National Insurance card. By that time I had been working three months. 'What', I asked 'is a National Insurance Card?' The answer was: 'Get down to the local bureau of the Ministry of Pensions and National Insurance'. This I did that afternoon. I was told that I should have had a card from the time I started work, but that they would fix it up now. I was then asked what plan I wanted to go under as a married woman! Finally after much discussion and seeing several people I discovered that if I did not want a special pension after retirement age and if I did not want certain benefits if I became 'in a family sort of way' (that question again), I could pay a low rate. But for this I would have to produce my marriage certificate which was in Canada. Well, to make a long painful story short, I received my card and paid the low rate but not before there had been many

nasty and angry telephone conversations between myself and the university office which wanted my card.

But as a warning to anyone else, beware of such details - I was never able to recover the money I had paid up to then at the higher rate, despite many attempts.

And so time has passed. It is now almost two years since the last episode. In the meantime I have left this job and am teaching swimming privately. Why? Well, it's all tied up with a quality of the English character which can be its most frustrating and also its most lovable. This is the 'cult of amateurism', the dogged determination not to encourage anyone to make a living at what he does best. This is, of course, completely alien to the North American mind, which boggles at the thought of making a retired Admiral the head of a municipal housing authority. (A newspaper reader asked if the logical next step was the appointment of an estate agent as Admiral of the Fleet). On the other hand, it fosters a climate of 'trying anything once', and is responsible for the adventurous spirit which has built the Empire (now Commonwealth). Successive generations of amateurs have felt themselves compelled to 'do their bit overseas', and if they have at times appeared somewhat muddled, the Commonwealth is nonetheless richer for their efforts.

What has all this to do with me and swimming? In my lab. job, I was a professional doing the job I had been trained for and knew best. Therefore, I was considered slightly inferior to what I am now - still a professional, but in an amateur field, that of sport. This is still not completely acceptable, but you would be amazed (as I was) at the difference in attitude toward my work: now and before . Even the pay is better! And now if I was asked for my advice, which is quite unlikely, this is what I would answer:

- 1. have an open mind
- 2. look before you leap (especially concerning Jobs)
- 3. be prepared to be always called 'Mrs. " no matter how much you beg to be addressed by your first name.
- 4. have a British-Canadian dictionary.

Just to keep the facts straight, there still is no family!

Life in the Provinces—by C. B. Chapman, 1962 (#9)

(Chris Chapman is a 1962 Fellow from the University of Toronto. He spent his first year on application of computers to management problems at Ferranti Limited. For his second year he studied business economics in operational research at the University of Birmingham).

'Cambridge or Oxford?' the inevitable question when friends and acquaintances learned when going to study in Britain. The consistency with which their eyes misted with sympathy or boggled with surprise when I replied 'Birmingham' was alarming. I hereby testify: I survived, still have my health and sanity—and spent one of the most rewarding and enjoyable years of my life in good old Birmingham.

My reason for choosing the University of Birmingham was the course offered—and I was disappointed. The purpose of this effort is to dispel any anxiety in those who made a similar decision, and to provide a few comments on living in Britain.

The important thing is the people and not the place—a well worn phrase—but one to write in big letters above your shaving mirror when you arrive. Not that Birmingham is a convent—but the comforts of home may be somewhat evasive. Cold flats are a remarkable stimulus for socialising. Taken advantage of one can really enjoy discussions over a pint of beer or a cup of coffee, but being on your own can be a bit discouraging. Hence, if you haven't got a wife to keep you company, sharing a flat is a sound idea. Not only does it provide company and good times—it is a good way to obtain reasonable facilities economically.

While it seems foolish on the surface to live with Canadians while in Britain, there are many advantages. Apart from sharing the same interests and outlook, the trip over provides an ideal time to make friends with the other Athlones and form a group interested in sharing a flat, or a house if there are enough. If you get a place slightly big for the group you can get others to join you once you get sorted out and make some friends. Not only is Britain home for the British—you will have the opportunity to meet people from all over the world living in Britain.

Mobility is a considerable asset when living abroad, and if it can be managed, a car is invaluable, no matter how old and bruised. Even one car shared among friends is better than nothing. It is important not just for the convenience, but because you are naturally inclined to go 'further afield, see more, and meet more people. Holidays should be carefully taken advantage of. Not only do you have easy access to the continent, there are many enjoyable spots in Britain. Scotland is good for skiing in the winter, particularly around Easter, and provides a well

spent week socially as well. The Lake District is good for a long weekend, with small keel boats for rent on Lake Windermere very reasonably, and riding nearby. A great week or weekend can be spent on the Thames in a hired cabin cruiser—not too expensive if you get enough friends together.

You should never regret your decision to come to Britain.

CBC

New Fellows might find this Useful—by Mr. Ian H. Rowe, 1964 (#11)

(Ian Rowe is a 1964 Fellow from the University of Toronto. He spent his Fellowship at Imperial College doing Automatic Control and s staying on for a Ph.D.)

British line voltage standards range from 220 to 250 volts. Most of London is standardized at 240 volts while some remaining areas at 230 volts are being converted to 220 volts. The frequency is 50 cycles per second.

Canadian transformers, nominally 115/230 volt rating at 60 cycles, run somewhat warm; the higher voltage and lower frequency. Hence for continuous operation, e.g.: electric blankets, the transformer rating should exceed the load rating.

I operate my electric shaver and electric blanket from a Hammond type 170B transformer, 200 VA rating. It can be ordered from any Canadian electronics supply house such as CESCO. Supplied without a base and outlet, it is cheaper than a conventional transformer.

As gas cooking facilities predominate 1n Britain, it is advisable to leave the electric kettle at home. It is cheaper and faster to heat with gas. Lamps should also be left at home. The sockets are different and the bulbs will not last as the transformed voltage is probably in excess of 120 volts. I bought an adjustable table lamp for £1.

For, heavier appliances (frying pans, irons, toasters) a 1.5 KVA is required. I bought a new step-up transformer at a surplus store in Toronto for \$9.00 which I am using backwards. That is, I connected the 220 volt secondary winding to the 240 volt plug.

Surplus stores in London occasionally carry step-down transformers (without Canadian sockets). Look in the advertising pages of radio magazines for shops in ??? Road or Tottenham Court Road, London. In the same area radio supply shops you may get replacement idler wheels of the right diameter for converting Garrard or Collaro record players from 60 cps to 50 cps operation.

The electrical outlets in some older flats are rated at 5 amperes which is inadequate to run a 1500 watt appliance load. Dry cells are cheap here; a flashlight battery is about sixpence. Mercury cells for camera flash guns are not common and expensive.

Benighted-by Mr. R.D. Weir, Ph.D., 1963 (#11)

(Ronald Weir is a 1963 Fellow from the University of New Brunswick. He spent two years of his Fellowship at Imperial College on Chemical Engineering and with the help of a scholarship from the National Research Council of Canada, stayed on to take his Ph.D. Whilst at the College Mr. Weir was awarded the Rudolf Lessing Medal for 1966 for original postgraduate work of exceptional merit in the field of Chemical Engineering.)

I have been called demented and benighted. People have laughed at me for the many hours of queuing for tickets at the Royal Opera House. It has been said that some people will queue for anything. Maybe so, but the discomforts of the pouring rain have brought rewards of tickets to magnificently staged productions of both opera and ballet. When I came to London, I questioned the necessity of standing all night for tickets. I have since learned that for many productions, it is essential. One can always take a chance by postal booking but it is only a chance; the queue, sometimes unpleasant, is a certainty for good seats.

The longest during my time here was the four day and four night job for Miss Callas (Tosca). I understand that this is not a record. Since the war there has been a five day, five night marathon on two occasions—once for the tenor Gigli and once for the Bolshoi. This may stand as the record, for in the past year the police have advised that the line should not begin to form before midnight of the morning the box office opens. The warning has not deterred the maniacs. At the recent queue for the Kirov Ballet, bodies began congregating three days before. The resulting scuffle with the police from Bow Street station ended in a battle of wits. The frustrated police gave up. These performances In September, 1966, will be our last at Covent Garden for a while.

For those not familiar with the system, the queue is arranged by those queuing and not by the R.O.H. The first along places his name as number one on the 'queue list". Those joining subsequently place their names on the list which is usually kept by number one. This numbered list retains your place in the queue since no one, not even the British, can be expected to stand in a rigid line for four days! Regular checks by number one prevent those slinky ones, who pop home to bed, from keeping their names on the list. Three queues are formed for the

various parts of the house. There is one each for the Amphitheater front and rear, accounting for some 800 seats, while the third is for the rest of the house, about 1,500 much more expensive seats.

Personally, I never queue without musing on the different types of persons who are there. There are the young, to whom it is a novel adventure, and the elderly, for whom it is a boring routine. One regular lady participant has seen nearly every ballet production since 1931, the Vic-Wells company as it then was. Even the stray American tourist wanders past enquiring in a voice that resounds to Leicester Square, 'What cha all queuin' for". The reply, 'For the box office which opens next week, mate" bewilders him and he staggers away muttering "Gee".

Having signed the list, many stake their claim in doorways along Floral Street and unload their paraphernalia which seems to include everything but a marquee. The bodies are littered everywhere and the heavy lorries from the Covent Garden market roll past only inches from the boots of those sleeping. During the shorter queuing sessions involving only one night, I preferred not to sleep but to meander through the market area which springs to life after midnight and is busiest around 5 a.m. The aisles and aisles flower displays are resplendent, so much so that on occasion, I have succumbed to buy four-foot potted lilies at 5.30 a.m.—bulk quantity since they're wholesale! The Handling of the lorries with the fruit and veg. is an art. They are packed heavily and stacked high, but miraculously, they are rarely spilled.

By 7 a.m. the line is formed in accordance with the numbered Queue list to await the appearance at 8.30 of an impressive mustached man from inside the R.O.H. with a stack of numbered cards, one of which is handed to each queu-er. The numbered card states the time you are to return to the box office to purchase tickets. Beginning at 10 a.m. the box office deals with about 26 queue cards hourly and no person can purchase tickets without one. When all the Queue cards have been processed, which often takes up the whole morning, booking is then opened to the general public.

Having returned to the box office for 10 a.m. the end is in sight. At last the queue card is signed and the tickets handed over. With a final recheck of dates, I obsessively clutch the yellow pieces of paper and head triumphantly home to a welcome home.

Hello, Goonhilly—by Mr. Gerard Terreault, 1964 (#11)

(Gerard Terreault is a 1964 Fellow from Ecole Polytechnique. He spent his first year at the University of Birmingham on the one-year M.Sc. course in information Engineering. The second year was spent at the G.P.O. Research Station, Dollis Hill, London.)

After a year spent at the University of Birmingham, I went to the G.P.O. Research Station in North London for my second year. Following the steps of another Athlone Fellow, Tom Nickerson, I joined the Satellite Communication Group, not for the glamour of Space Research, but for some experience in microwaves.

Early Bird has brought us sound and pictures from all over the world. These satellites are however mainly used to provide International telephone circuits. For the time being, summer 1968, the satellites in use can link only two ground stations at a time such as Goonhilly in Cornwall and Mill Village, Nova Scotia. It would be useful to have a number of stations in different countries sharing the same satellite. For instance, a satellite 'parked' over the Atlantic sees one third of the earth and could link Europe, Africa, North and South America. The satellites would then be fully used and therefore cheaper to operate.

The team I joined designed test equipment to measure the effect of transmitting a number of signals through the output amplifier of a satellite. The interaction between these signals in such a non-linear device appears as noise in the subscriber's set and is known as Intermodulation. The level of this noise was measured under different conditions of loading to determine how many channels of telephone conversation &/or colour television, could be relayed by the transponder with the noise level kept below an International standard.

I thought I had changed profession, lost as I was in the middle of that 'Plumber's Delight' otherwise known as waveguides, cross-couplers, pads and bends.

Even when everything is reassembled, one is still not able to take measurements. Now the real problems are waving at you; you have to give life to your brainchild and he must be in perfect health. As soon as one bit is debugged, another one goes wrong. You wonder for hours why you have lost a signal; you twiddle knobs, read dials, poke your finger inside a black box, kick it—nothing happens. Finally after lengthy discussions you discover that you pulled out the mains plug in the morning.

One of the highlights of the year was the visit to Goonhilly Downs, at the tip of Cornwall, where the big dish, 85 feet across, is looking at the sky. One morning I left Paddington on the Cornish Riviera Express, and seven hours later Truro was welcoming me. From there I was driven to Goonhilly. It was already dark and

hazy; the car was rushing at 30 m.p.h. on those winding highways, guided by the 8 feet high stone walls bordering the road.

Then the road widened and there **IT** was; the aerial was glowing under the lights. It was still and quiet outside; the ear was listening to a new star, Early Bird. On the other hand the control room was busy; a large panel was covered with a rainbow of lamps, dials, and knobs. The 100 feet high steel and concrete structure was tamed by the tiny transistors of the computer. The aerial being fully steerable can move swiftly track a low orbit satellite, or can be kept still, pointing at a synchronous satellite, either case with an accuracy better than a few minutes of arc.

After two days, the visit was over. Fortunately on that Saturday morning it was warm and sunny and turning my back on London, I headed towards Penzance rolling up and down hills. But it couldn't last and too soon it was London again.

Christmas in Britain – by Dr. and Mrs. R. G. Matheson, 1964 (#12)

(Richard Matheson is a 1964 Athlone Fellow from U.N.B. He spent his Fellowship at Imperial College reading Concrete Structures and Technology and stayed on for a Doctorate)

The first we learn of Christmas in Britain was in 521 A.D. when King Arthur went to York Minster to remember Christ's birthday, after he had won a great battle against the Danes. In the Middle Ages, Christmas was a very Jolly time. However when Oliver Cromwell was Lord Protector of England and there was no king, the Puritan parliament made laws establishing Christmas as a very serious and solemn time. Naturally there was great rejoicing when Charles II came to the throne and allowed the old traditions once more.

Carols, of course, are a great part of Christmas the world over. In Britain long ago the word 'carol' meant a dance used to celebrate the shortest day of the year, and later carols were sung by minstrels in the halls of the great lords and finally by street singers. And so today this tradition is carried on in house-to-house fashion by groups of children and church choirs.

Apart from the tree which is usually an evergreen, very much like our CanadIan Christmas trees, holly is used very widely to decorate the interior of houses. The climate in Britain is ideal for the holly tree and it is quite a thrill to see it growing in such abundance at this time of the year. It is unfortunate that people in Britain do not decorate the outsides of their houses, but this American custom has not

found favour in Britain. Nevertheless, we always hang a large holly wreath on our front door which gives away our nationality to everyone who passes by!

Living rooms (lounges) here are made to look very gay with coloured streamers, paper chains, balloons and frills which in our opinion seem more like a Halloween decoration than one appropriate for Yuletide. Every tree is topped with a Christmas Fairy, very often handmade, which has been kept in the family for many generations. This Fairy serves as a symbol of good luck to the household.

In the majority of homes the tree is not trimmed until Christmas Eve and no decorations are removed until Twelfth Night. This day, January 6th, is the feast of the Epiphany, which is remembered as the day on which the wise men were guided by the star to the stable at Bethlehem.

I'm sure in no other country is there so much social preparation of food as there is in Britain. There is an Italian saying to describe a busy person: "He has more to do than the ovens in England at Christmas"! An English sailor was the first to introduce the turkey as the Christmas dinner in the early fifteen hundreds. By the turn of the 17th Century, the American turkey had replaced the peacock as the traditional Christmas fare. Pork is very popular for Boxing Day which here is celebrated as much as Christmas Day itself.

Plum puddings are made with a great deal of excitement and ritual. Every member of the family must have a stir and make a wish before the pudding is wrapped for steaming. Our daughter, Cindy, had great fun with her hands in the mixture.

The traditional Christmas cake, which the Canadians know as a dark fruit cake, has to be seen to be appreciated. Every cake is very elaborately decorated with almond paste as a base and then little figures and scenes are put on the top. They are really beautiful and seem much too lovely to cut.

Mince pies are an important part of the Christmas fare in Britain and are always made in the form of small tarts as some people consider it unlucky to cut a mince pie.

Entertainment for children during the Christmas holidays is very traditional and different. In Canada, while much of the holiday is spent in skating and tobogganing, here it is a time for Pantomimes and the Circus. The pantomimes, Peter Pan being the great favourite, have become very grand shows with many changes of scenery and magnificent costumes. This is a change from the original pantomimes of two hundred years ago when dancers portrayed a very similar

fairy tale or nursery rhyme. It is also very common in London for one company to do a marvelous show on ice.

The circus in recent years has become just as popular as the pantomime, and every Christmas the children in London go to the three-ring circus at Olympia. Two more annual and traditional entertainments are the Nutcracker Ballet performed by the London Festival Ballet, and Hansel and Gretel staged by the Sadlers Wells Opera Company.

London's two main shopping areas, Oxford Street and Regent Street compete each season in erecting overhead decorations down the length of the thoroughfares. These decorations are beautiful but they attract so many people that they create some of the tightest traffic jams of the year.

Trafalgar Square is our favourite spot at Christmas time. Every year since the end of the second World War, Norway has sent a 60 ft spruce tree which is covered with lights and erected in the centre of the Square early in December. The gift is a gesture of appreciation for the help that Britain gave to Norway during the conflict and every year the turning on of the lights is performed by the Norwegian Ambassador in a ceremony which includes singing and dancing around the tree by a group of Norwegian children. On Christmas Eve crowds gather in the Square and carols are sung in many languages. It is a very moving scene.

We hope that these impressions will bring back happy memories to those former Athlones who had the experience of enjoying Christmas in Britain.

Tittles—by Mr. T. G. O'Flaherty, M. Sc., 1965 (#12)

(Tom O'Flaherty is a 1965 Fellow from N.S.T.C. He spent the first year of his Fellowship at Rolls-Royce Ltd. in Derby, and the second at the University of Birmingham in the Operational Research Group.)

I was flattered when asked to contribute to the Newsletter, and then, of course, in the next instant puzzled. Write, yes, but write what? I was determined not to be beaten by such a minor consideration as subject matter.

In an effort to surmount this problem, I found myself jotting down at random, all the different thoughts and impressions I have had during my stay, hoping that one or two of these jottings would trigger that creative spark which might evolve a story.

I then became more interested in the jottings themselves rather than what they might have led to and decided to present simply these "memoirs" so to speak, as seen from Canadian eyes.

- England is the Sunday Times, very late on Sunday morning.
- England is beer in twenty ounce pints.
- England is an overworked telephone system.
- England is a Thursday night at the Admiral Coderington, or the Dog and Partridge, or the White Swan.
- England is "Top of the Pops," "The David Frost Show", "24 Hours", "The Wednesday Play."
- England is stiff upper lips, well played cricket balls, and paranoiac Mini drivers.
- Pinta man is cool!
- Join the Co-op now!
- Support free radio!
- Join the tea set.
- England is mini-skirts on Oxford Street.
- England is a long time at High Street Kensington on Sunday waiting for the Wimbledon train. There is no Wimbledon train at said station on Sunday. What sign?
- England is friendly greengrocers, and wine merchants, and butcher shops, and fishmongers, and ironmongers, and chemists' shops.
- England is December 21st at Victoria Station, Overseas section, five minutes to departure. "I wonder if I can sneak these skis past that British Rallways guard" Hey Poohl!
- England is all major auto and motorcycle races on TV, or should I say "telly"
- England is fish and chips—and processed peas, ugh.
- England is a warm Sunday afternoon in the Peaks, or Stratford, or Hyde Park.
- England is a traffic jam in Derby, or London, or Birmingham, and a Minister of Transport who doesn't drive.
- England is inexpensive Wedgewood, Burton Suits, good shoes, haircuts.
- England is expensive smokes, liquor, gas, road tax.
- England is an old beer-stained school tie, worn proudly to the office.
- England is watching a steel-nerved London taxi driver at work, a true professional.
- England is flowers, and impeccable lawns, in the midst of endless city.

• England is waiting for snow, or sun. England is the bastion of the Individual.

England was good times.

A Holiday in the U.S.S.R. – by Mr. S. F. Turcotte, M. Sc., 1965 (#12)

(Serge Turcotte is a 1965 Fellow from Ecole Polytechnique. He took his Athlone first year at The Steel Company of Wales, Ltd., and his second at The City University, London on Management Studies.)

Just before Christmas, 1966, a few friends and I decided to spend the next Easter holiday In Russia. We only had two weeks break and money was restricted so we were impelled to form a party and travel by train taking advantage of a reduced group fare.

To secure this advantage we needed a group of at least sixteen people and we organised a campaign to reach this number from the original six interested people. The group leader and his assistant (two French-speaking Montrealers) went to great pains to find the required number, but they were more than successful because a group of twenty-four was finally formed.

The long awaited departure came on Good Friday, March 24th. Several international groups were leaving Victoria Station for the Continent and our group with its unmistakable international air must have struck the crowd in the station that morning. In fact the group was composed of thirteen Canadians, six Americans, one German girl, one French girl, one Australian boy and one Venezuelan boy. Two married couples, seven girls, thirteen boys. I knew a few of the Canadians, the Australian but none of the others. It was going to be an interesting social adventure as well.

The Channel crossing turned out to be a marvellous occasion to get to know each other, and we had time to do some sight-seeing in Ostend before boarding the train for the long trek to Berlin. The first night provided the first major incident of the trip. The couchette problem! We had reserved couchettes for the whole group but due to a misunderstanding none of the couchettes was available. So the first night was a hard night in the compartments, less hard though depending on the company you were with!

In East Berlin there was a change of train to a Polish one, and it was early on the Saturday evening when we arrived in Warsaw. Our programme for the evening

provided for a meal and a visit to the old part of Warsaw, or perhaps a walk, or even to watch a game of ice hockey on the television during the current world championships in Vienna. How strange to be in Warsaw. to watch an ice hockey game between Canada and Czechoslovakia. Warsaw turned out to be a pleasant halting place, thanks to a great extent to our most obliging guide, a Polish student who had previously travelled to Britain.

At long last on Easter Tuesday we arrived in Moscow under a pale, but yet bright, end of winter sun, not unlike a Canadian equivalent. Immediately we were conducted to coaches by our guide (a Russian girl who had been with us ever since we had crossed the border) and off we went to the hotel which, unfortunately, was situated almost at the edge of urban Moscow. We learned then that we would have to take all our meals in the centre of the town, near the Kremlin, which involved a lot of travelling. On the other hand it was easier during the day, while n town, because it was only a few minutes' walk from anywhere in the central area.

The restaurant we used was quite a sight in itself. Its entrance, on the Avenue of the 4th October, has nothing to distinguish it from any other building except that a porter was in attendance most of the time controlling access. Inside one discovered quickly that this restaurant retained a grandeur one would not expect in such premises; it had spacious long corridors, large cloakrooms, a big dining room with a dance floor and an interesting mezzanine. The Cafe Royal of Moscow in other words.

Eating out is really one of the main features of Moscow's night life, and we saw many Russian parties enjoying themselves in this way. They enjoy their food and drink. During all our stay in Russia the food was superb and we had many enjoyable reunions around the table. They remain vivid memories in our minds with all the caviar and the vodka that go along with them.

We were to stay four full days in Moscow during which we did all the traditional visits to the Kremlin, the Red Square, the University, the museums, the Bolshoi Theatre, the palace of Congress and so on. I suppose all of us were struck by different things; I certainly share with quite a few others the first impressions of a very large metropolis, not very different from a town familiar to us, like Montreal, where people go about their affairs in a very brisk manner. The spring mornings with the wet pavements, the tang of the air and the pale sunlight were probably why the image of Montreal on similar mornings came to mind.

On Friday evening March 31st, we left Moscow for Leningrad where we arrived early next morning. This city was not as animated as Moscow and there was much less car traffic on the streets. The buildings looked much older, except for

Moscow's Kremlin, in spite of Leningrad being the much younger town, but no doubt this situation is attributable to the burning of Moscow during the Napoleonic campaign. But Leningrad, built to the order of Peter the Great, is unquestionably beautiful. The wide avenues, the planned layout of all the avenues and trees, the superb perspectives all contribute to make it one of the best designed cities in the world. What a contrast with North American towns. In my limited knowledge, only the perspectives found in Paris surpass those we saw in Leningrad.

Perhaps the most outstanding item of interest in Leningrad for the visitor is the Hermitage; this arts museum contains such treasures that it is not possible to deal with them in an article such as this. Many other things were worth seeing in Leningrad but we hadn't time. We left for Moscow on 4th April and had a final evening there. We had another evening in West Berlin, where our memories of the "Hofbrau Haus" will remain for a long time. On Friday April 7th we were back in London, not happy to be at the tail end of a marvellous holiday, but all rather tired and pleased to be home.

Advice for New Athlones - Dr. Tobias Gilsig, 1963 (#12)

(Tobias Gilsig is an Athlone Fellow from McGill of 1963 vintage, who spent his time at Imperial College.)

I spent the two years of my award at Imperial College, in the Power Systems group. A third year, supported by the Central Electricity Generating Board, allowed me to successfully complete a Ph.D. programme, in November 1966.

I would like to offer some suggestions which I think may be helpful to new Athlones, and which I would certainly follow if I were starting all over again.

- 1. Have a good idea of the type of project that you want to work on before you leave Canada. Correspond with your prospective supervisor, if possible, and find out which projects he has research funds for. Thorough groundwork will allow you to pick your own project, or at least to evaluate the choice offered to you.
- 2. As a corollary to this, especially if you will be working towards a Ph.D., don't panic. It may seem very important to start your project by Christmas, but it isn't. If you don't know exactly what you want to do, spend some time considering alternatives. You'll soon make up time through working without doubts as to whether you are doing the right thing.

- 3. Do not be too hard on the British educational system. The emphasis is on individual research. You may be unfortunate enough to draw a supervisor who has little spare time for his students. More likely, your supervisor will be helpful, but you will have to go to him—he won't be looking over your shoulder.
- 4. If you are staying three years or more, start thinking about money very early in your second year. Apply to the National Research Council of Canada and your provincial grant authority, but don't stop there. Enlist the aid of your supervisor in arranging support from British industry, if all else fails. Industry is often interested, as they stand to gain the fruits of three years research for the price of one.

Educational Progress: - by John R. Grace, 1965 (#13)

an Opportunity and a Challenge for Engineers

(John Grace is a 1965 Fellow from the University of Western Ontario. He spent his two years of Fellowship, and an additional year, taking a Ph.D. degree in Chemical Engineering at Cambridge University. He has now returned to Canada.)

There are many causes of the widespread student unrest throughout the world including archaic institutions, overcrowding, impersonal and autocratic administration, and social and political unrest. One of the most general causes of dissatisfaction, however, is the inadequacy of antiquated teaching methods. The feeling g that teaching methods can be greatly improved is almost universal, at least to the student in the modern university.

As Athlone Fellows, past and present, we should have a special interest in this subject. All of us have had at least four years of undergraduate in Canada and then most of us have taken one or more years of graduate university training in England. Thus we have all had considerable experience in university classrooms. Furthermore, a large number of former Athlone Fellows are now teaching in universities. In addition, many of the educational advances being proposed and tested involve technical problems which are of considerable interest to Engineers. With the importance of education in our society and the current mood of university reform, educational advances have a social relevance much greater than that associated with most technical problems.

One of the primary causes of discontent in the university is the lecture, the backbone of the traditional system. When we analyse the lecture, we find that it is a most unsatisfactory means of transferring knowledge from the professor to

the student. The speed at which the lecturer talks may be quite different from the speed required to give optimum comprehension among the audience. At least in reading a book, a student may pass quickly over sections which are already well understood and devote special attention (including rereading) to sections of special difficulty. Furthermore, the student is at liberty to read the sections of a book in any order so as to increase their impact and meaning. In a lecture, on the other hand, the student must suffer through material which is already well understood while difficult sections may be taken too quickly to allow comprehension. In addition, the student has no control over the order in which topics are covered.

With groups of about thirty or less, communication between the lecturer and his audience is difficult but just possible. For larger groups, however, the lecture becomes intolerable as a means of communication. Feedback from the student to the lecturer is virtually impossible; it becomes very difficult for many students to see or hear the material being presented. As frustration grows in the impersonal atmosphere, other distractions are bound to occur. At best the student becomes an efficient stenographer, producing a series of mini-books, one per course, lacking the printing facilities and checking procedures of conventional texts, but having the dubious merit that the thinking of the individuals who will assign marks for the courses are reflected in the pages. Recently the lecture has been described as a situation in which material passes from the notebook of the professor to the notebook of the student, bypassing the brain.

What may be done to improve the lecture system or to replace it altogether? Clearly the quality of lectures may be improved and the groups lectured to may be made smaller but these improvements may not be practical in many cases. Recently a great deal of work has been done to encourage the use of audio-visual aids in the classroom. There is an old adage that a picture IS worth 1,000 words and it is true that many phenomena which would take hours to describe or to demonstrate in the laboratory can be readily illustrated by films. If the material is presented attractively and with variety, interest can be sustained. For example, I recently attended a lecture in which important statements were projected by means of slides. Various psychedelic colour combinations were used for these slides and there is no doubt that the attention of the audience was kept riveted to the screen throughout the presentation.

Another teaching method which is gaining some popularity is the carrel system, which many will be familiar with from language laboratories. This system overcomes some of the disadvantages of the lecture system. For example, the student may repeat sections which give special difficulty and skip sections which

he finds trivial. Material can be covered in convenient doses with pauses to use pencil and paper or to refer to printed material. The carrel system can be extended to allow learning through the visual as well as through the auditory mode of perception by providing closed circuit television screens, one in each carrel. In fact it should be possible within a few years to develop home television sets and tapes so that the student may take tapes home with him and learn in his own time.

If the carrel system or some variant of it becomes widespread, many changes will be necessary in the traditional university. The professor, set free from the preparing and delivering of lectures, will have additional time available for tutoring individual students and for conducting seminars. of small groups. With classrooms largely obsolete, architects are challenged to provide a learning environment suitable to the new educational methods. University boards of governors would then be able to devote more funds to seminar rooms, library facilities, better staff, and further improvements in teaching methods.

The computer also has attractive possibilities as an active participant in the teaching process. So-called programmed learning has been found to be effective for certain topics and computers can be of obvious value in this field. Recently a computer was programmed to become a world master of the game of draughts; the computer played against experts and learned from its own mistakes. It is clear that the machine 'trained' by experts then becomes an excellent tool for teaching draughts to other players. The extension of this principle to fields of education is entirely possible.

I have not tried to deal here with such important subjects in education as curriculum, laboratories and field trips, and other experiments in education such as mixed media presentations. Problems associated with examinations appear to be at least as difficult as those associated with teaching and so I have left these. The fields of sociology and psychology have led us to realize it is possible for students to learn more under relatively painless conditions than previous students have learned under the traditional system of education. The general impatience among students has made it imperative that improved methods be developed quickly. There are many possible pitfalls but it is a fascinating subject and one that deserves attention from all of us.

We're Backing Scotland—by Ruth and Edwin Heinrichs, 1976 (#13)

(This is a combined effort by Ruth and Edwin Heinrichs. Ed Heinrichs is a 1967 Fellow from the University of Saskatchewan who spent his one-year award on a Business Administration course at Strathclyde University. At the same time his wife Ruth took the Master of Education degree at Glasgow University. They have now returned to Canada.)

Many people think of Great Britain as 'England' or perhaps even only as 'London'. However, we chose to go to Scotland, and soon learned that this is another nation, whose inhabitants very much resent being called English, and who resent being governed from afar—a vast distance of four hundred miles!

Broadly speaking, Scotland is comprised of the Lowlands and the Highlands, the clans coming only from the Highlands. Geographically these areas are strikingly different. In spite of the 262 year union with England, Scotland has retained its own banknotes, educational structure, and dialect. Gaelic is still prominent in the northern area. The Scots consider Canada to be a large version of Scotland, and truly every Scot has a relation or friend in Canada.

The prime difference that we found between Scotland and Canada was the class distinction which permeated the educational system, the way of life, and every aspect of society. For example, the occupation of one's father appears to influence one's opportunities to a great degree. Tradition is another obstacle with which we were unfamiliar. Here one soon finds that the post is the proper mode of communication rather than the telephone, and that the ensuing action will be commenced within a fortnight (which is a flexible unit of time).

In the field of education, studies abroad are not confined to books, to classes, or to universities. The experience of living with another people, and of trying to understand their thoughts and problems, helps to broaden one's tolerance, scope of interest, and area of concern. Thus the value of an Athlone Fellowship should not be considered solely in terms of future earning power, or of income foregone while abroad. Another intangible benefit of studying in Britain is a deeper appreciation of Canada, which is often lacking in Canadian citizens.

Therefore, in spite of bag-pipes, haggis, smog, hurricanes and 'Dear Old Glasgow Town', our sincerest thanks to the British people, for a very worthwhile year on the 'Wee Isle'.

In Pursuit of Culture-London—by D. C. (Cam) McAlpine, 1967 (#14)

(D. C. (Cam) McAlpine, is a 1967 Fellow from the University of Alberta. He has spent his two years of Fellowship, studying Advanced Chemical Engineering at Imperial College in his first year and then working with Esso Petroleum Co. Ltd. for his second year. He has now returned to Canada.)

Having casually mentioned in my half-yearly report to the Athlone Committee that I had been spending my spare time in London in the pursuit of culture, I was shortly thereafter asked to jot down a few lines on the topic for posterity. 'No time for such things' thought I; But after some careful consideration, the thought of being read by hundreds was too much. I agreed.

I have allowed myself the liberty of defining culture rather broadly, permitting me to mingle 'low brow' with 'high brow'.

Some of my greatest moments in the pursuit of the 'high brow' have been spent wandering the confines of Covent Garden while unofficially queuing for opera tickets. For the uninitiated, this is a twelve hour vigil (easily reduced to four hours if one makes the proper arrangements with friends) from 7.00 p.m. to 7:00 a.m., usually endured once every six to eight weeks (a Booking Period). All in aid of getting cheap tickets (Front and Rear Amphitheater) to some of the best opera in the world—at least that is what I was told by some foreign gentleman who had seen 'Aida' nine times! I quickly became an expert at dodging the pushcarts full of cabbages, sprouts, carrots, etc. (,out 0' me way, Mate'-with the 'a' pronounced Ii'); even lifted an orange off the rear of a lorry when it got stuck in one of the innumerable, narrow side streets in the market area and was convinced that Henry Higgins must still be alive and well (possibly hiding out in Moss Bros. just down the street!) During my third session I became fully engaged in a discussion on the Ring Cycle (a set of Wagnerian operas - something which came to light after the discussion was over) and later added my 2s. 6d. worth on the virtues of Verdi over Wagner (a complete bluff). And to cap it all, I even led the 'Bravo, Bravo' in my section of the Front Amphitheater after 'La Traviata'. A wonderful experience not to be passed up.

To further expand my cultural education, I began going to the Symphony; first, just to see what the inside of the Festival Hall was like (the pipe organ was magnificent) but finally because I began to enjoy the music. After starting on the classics of Beethoven and Tchaikovsky, I slowly progressed to such heights as 'Concertos for Four Harpsichords'. But I'll still remember the looks of disapproval (and quiet whispers of 'boor') when I jumped out of my seat at the Albert Hall as the cannons roared (must have the proper sound effects for the 1812 Overture) and continued echoing and belching smoke through that

cavernous auditorium. And lying in Holland Park on Sunday evenings in August (hoping it won't rain), enjoying the strains of music that float back through the sounds of rustling leaves and roaring jets.

I think I enjoyed the theatre the most though, both in and out of the West End. Always the cheap seats in the Upper Circle or Gallery; always the long, long climb up the stairs, which inevitably start from a little door down the side of the theatre - never from anywhere inside the main foyer! Segregation of the peasants—but I enjoyed every minute of it, probably more than those in the front stalls with their intermission bottles of champagne. Great comedies, intense drama, the social message and musicals of all types; the West End has everything! Everything, that is, except the National Theatre which is across the river at the Old Vic. I was lucky enough to have my name drawn for tickets to the Old Vic a few times and only regretted not getting there for more productions. The acting was always superb and the sets always intrigued me. I shall not soon forget such things as the wit and dialogue in 'Rosencrantz and Gildenstern are Dead' or the depression and final orgy scene in 'Oedipus'.

Which reminds me of my local pub, 'The Hand and Flower' on High Street Kensington; the quiet pint almost every evening at 10.30; the charming hostess Norah, the Dutch birds (thanks for the intro, Norah), the two pints already on the counter as we approach (thanks Tim), the many discussions with Bill (the Guv), and Arthur, Harry, George, all locals of long standing, the regulars along the bar (in the same place every night). It's this part of English culture I shall miss the most. The riverside pubs, up in Richmond, down by the docks, near the Hammersmith Bridge; the musical pubs: country and western at the 'Nashville Room', old rock at the 'Red Cow', the loud Cockney ones in Rotherhithe, the Sunday afternoon jazz at the 'Kensington'; the quaint, old, classic pubs, the 'Mitre' in Hatton Garden, 'Anchor Inn' Bankside, and numerous others everyone knows about; they are all enjoyable, always fun, but still not the same as the relaxing atmosphere of the local.

Culture is everywhere in London, to be enjoyed always, be it 'high brow' or 'low brow', the quiet pub or the opera.

Can a Canadian Teacher ever Teach in an English School, by Heather MacKenzie, 1967 (#14)

And find True Happiness?

(Mrs. MacKenzie is the wife of Alex W. MacKenzie II, 1967 Fellow from the University of Western Ontario. He did one year in industry in Britain and one year at Imperial College).

The purpose of the following is to help Canadian teachers wishing to teach as qualified teachers in state schools in England. It is in your best interests to register with the Department of Education and Science as you are then ensured the higher salary rates for state schools ('Burnham' rates). Although salaries are low by Canadian standards, visiting teachers are allowed to teach in England for two years tax-free.

A short explanation of the English state school system would perhaps enlighten you as to what differences you may expect in the schools. Generally these schools are quite well equipped and are under the guidance of a headmistress or headmaster. The school term begins in early September and ends approximately during the third week in July. Although your school year may appear long, there are several holidays during the three terms.

Infants begin school at the age of five and when seven leave their infant class to enter Primary schools, where they are 'Juniors'. Here they stay until eleven years of age, when they have to sit for the 'Eleven Plus exams, which are controversial at the moment, as their value is being questioned. On the basis of these exams (or where they have already been abolished, on the basis of their Primary school performance) the pupils are selected for either the academic (Secondary) Grammar School or the vocational Secondary Modern School. In some areas the pupils enter into a Comprehensive School which bases their entry qualifications upon previous work the pupils have done. Here they are 'streamed' according to their level of attainment in Primary school. At either the Grammar or Comprehensive School, pupils write their 'O' level (Ordinary) exams when fifteen or sixteen. Those who do not leave school at fifteen or sixteen may write their 'A' levels (Advanced) when they are ready, usually at the age of eighteen. If the required number of 'A' level passes are obtained, these students may attend college or university. The Secondary Modern school offers its graduates n certificate, or a limited number of 'O' level opportunities are available, but 'A' level examinations are not written. A number of pupils from Secondary Modern schools transfer to Grammar Schools at sixteen years of age to do 'A' levels and some others gain these by attendance at Technical Colleges or Colleges of Further Education, usually on a part-time basis.

If you would be a teacher in Britain, before you leave Canada you gather all testimonials, a statement from your provincial education authority concerning your qualifications and experience, if possible, and your certificate or degree. Anything relevant to your qualifications a teacher should be taken. But before you leave Canada you should contact the Department of Education and Science, Teachers' Qualifications Branch, Honeypot Lane, Stanmore, Middlesex, England telling them of your intention to teach in Britain and asking for the necessary Forms. Start those enquiries as soon as you can.

Let us now assume that you have been registered as a qualified teacher with the Department of Education and Science. Your next step will be to find a teaching vacancy. The most frequently consulted paper is The Times Educational Supplement which comes out weekly. This lists vacancies all over England. The local papers are another source of vacancies. Should you contact any of the advertising schools, you will be forwarded a questionnaire (usually) and if your reply satisfies their requirements, you will be notified of an interview time. If you are offered the position you may accept or decline as you have the liberty of answering as many educational advertisements as you wish. There is also an American School in London for which there seems a rather long waiting list for full-time teaching, but part-time is available. Also, there are educational agencies willing to locate a position for you and these advertise in The Times Educational Supplement. You may advertise if you wish.

My two years in England were s pent teaching full-time in Church of England schools which are part of the State schools system. My previous qualifications and experience consisted of a Permanent Elementary Certificate and two years of teaching, Grade Two, in Alberta, Canada. The rigid curriculum I taught in Alberta did not prepare me for the free method used in modern British schools. Infant schools all over England have been changing to the 'learn through play' method whereby the time spent on different subjects varies with the needs of the children and the teacher is only a guide. This change was very difficult for me to make .and only in my second year did I begin to understand the aims of this method and move the children along with confidence. This way of teaching is most challenging to the teacher but can also be very frustrating when you are faced with forty two children all doing something different at a given time (an average sized class). As yet, the Plowden Report offers the best explanation of the British idea of free expression in education.

When I look back upon my two years spent teaching here; I honestly feel that I will be a better teacher as a result of this exposure to a totally different educational outlook, although I understand that in my absence Canada has

made the switchover in some areas. I realize the advantages and limitations of both educational systems but feel that I was given a much freer hand in England, and was not bound by as many restrictions. For this reason I enjoyed my teaching in Britain as I am sure any enthusiastic Canadian teacher would.

Brass Rubbing—by J. D. (Doug) Macdonald, 1966/69 (#15)

(J. D. (Doug) Macdonald, 1966 and 1969 Fellow from Toronto. Doug spent his first year at University College Swansea but was unable to complete the two years of his award because of a serious motor accident. He applied again and was awarded a I-year Fellowship for 1969 and during that year he worked with Cremer & Warner.)

When my wife and I arrived in Britain for the first time in 1966, we thought brass-rubbing was a job for kind, little old ladies who didn't want the parish church's pair of fourteenth-century candlesticks to get tarnished. Four years (two spent in the U.K.) later, several thousand miles of country lane further and a few pounds poorer, we know 'better. Brass-rubbing is an occupation for masochistic North Americans who are prepared to pay for the privilege of acquiring a bad case of "housemaid's knee" by kneeling on the floor of a cold parish church for up to four hours and rubbing furiously with a stick of black waxy stuff on a sheet of paper.

For those who have not heard of brass-rubbing, or perhaps have seen one but not recognised it as such, here is a somewhat more useful explanation. From the mid-thirteenth to the late seventeenth century, one of the more fashionable ways of ornamenting a tomb was to set into its upper surface a flat brass plate, usually in the rough outline of a person, with lines incised deeply into it to form a sort of portrait of the lady or gentleman (or both) interred beneath. The resulting effigy was not usually meant specifically to be a likeness of the deceased but rather, by his costume, to give some idea of his station in life. As only fairly wealthy and influential individuals could manage a) to be buried in church and b) to pay for a tomb and brass plate, most brasses depict knights (or wealthy men who fancied themselves as knights), ecclesiastics, wool merchants, wives of the foregoing, or others of the influential professions of the Middle Ages.

Although most of the brasses (upwards of 80%) originally laid down have not survived through vandalism, theft and just plain wear, hundreds still remain dotted all over England (a few in Wales and Scotland): some in tourist haunts like Westminster Abbey, others, sometimes even more interesting than those in

the famous places, hidden under mouldy rugs in churches, almost forgotten except by those people who live nearby.

Someone a hundred years or so ago hit on the bright idea that if you covered one of these brasses with a sheet of paper and rubbed on the surface of the paper with something black and smudgy, where the surface of the brass underneath was flat a smudge would be left and where the lines were incised the paper would remain white. The final -result would be a sort of negative picture of a knight, or whatever, in black on a white background. Over the past hundred years, the materials have most certainly improved but the technique has not changed at all.

As well as making excellent decorations for future homes in Canada, brass-rubbings are a way of taking back with you an exact copy, produced from the original with your own sweat and blood, of a part of mediaeval England. Interested in trying this pastime? A few words of advice:

First, go to Phillips & Page, an antique shop at 50, Kensington Church Street (Tube station: High Street, Kensington). Buy, for about 25s., a paperback book called "Macklin's Monumental Brasses". Starting on page 108 is a chapter of excellent advice for the prospective brass-rubber. You can also buy a complete kit of necessary materials. My wife and I found that the black crayon or heelball supplied was not to our liking and we have had better success with heelball bought in, triangular sticks from a little hole-in-the-wall cobbler's shop in Bear Street, off Charing Cross Road, near Leicester Square. The advice given in Macklin's concerning how to contact the vicar and how to conduct yourself in the church is well worth taking. Even if you do not have a fundamental respect for a church, the vicar does, and if he is angered too often he will stop brass-rubbers completely.

Phillips & Page also have a sheet entitled "Where to go Brass-Rubbing in London" price about 3s. However, if you can get out of town you will probably have better success, as the brasses in London are usually deluged by spur-of-themoment rubbers whose 3-week charter flight ends the following day. The Victoria & Albert Museum publish a book—"Brass Rubbings"—at the incredibly cheap price of l2s., which has over 100 illustrations of rubbings, so you will not have to make an appointment to rub a brass 'unseen'. I suggest also that you visit a library, or perhaps Phillips & Page again, and browse through their books on the subject. jot down locations of any illustrations that look interesting—the Victoria & Albert Museum will show you any rubbing in their catalogue.

I will mention only two brasses specifically, 'as, if you are interested in rubbing you will rapidly come to know the really famous and make your own decisions

as to where to rub. First, in Coleshill, Warwickshire, there is a small figure of a priest whose right hand has six fingers. Second, in Oddington-upon-Otmoor, Oxfordshire, there is a figure of a shrouded skeleton, crawling with worms. This last is not the usual sort of parlour decoration but it serves to point out how brasses can be an indication of some of the queer customs which people had in the Middle Ages.

Finally to brass-rubbing, not as a pastime itself, but as a uniquely British experience. On a typical brass-rubbing Saturday, with perhaps an appointment at 2.00 p.m., we start out from home early enough to arrive in the town about noon. A walk around the town, perhaps a bit of shopping at the greengrocers (prices are cheaper than in London and, if you have driven far out, you might as well take advantage of it) and a sandwich lunch at the local pub. Then a call on the vicar to pay whatever fee is necessary, and on to the church at the appointed time. By the way, if there are rubbers in the church before you, they may be able to give you some pointers about the pitfalls (raised corners likely to tear paper, etc.) of particular brass(es), and perhaps a few suggestions on others they have liked.

We are not able to rub continuously, so many breaks must be taken and we buy a guide book to the church (if available) and spend our breaks reading it and wandering around the church peering at, inscriptions, poking under choir stalls for carvings and generally taking time to examine the church and its structure minutely. In these moments of walking about one begins to see the mediaeval English parish church in its true perspective; as the central entity in the life of a small town of the Middle Ages. It is a blend of aspirations of grandeur, expressed in tall arches and stained glass, and simple faith, expressed in smaller ways—tiny carvings depicting angels, devils, cats, dogs, and little scenes from everyday life in the Middle Ages, usually with some moral attached. Its tombs and brasses symbolise death, yet in a sense, other than the religious, they bring the dead to life again for us, partly by their presence in effigy and partly by our interest in their history.

You will meet few British people doing brass-rubbing; your fellow rubbers will be mainly Americans. I think the reason is that for the Briton his parish church and all its treasures will always be there, while for us our time is short.

Over the past year we have accumulated a collection of over forty brassrubbings. Some, in fact most, I doubt if we will ever hang. However, in the process of acquiring them we have gained a great deal of knowledge, both about the parish churches and the brasses themselves, and have had the pleasure of seeing parts of rural England almost totally unspoiled by the presence of

industry or tourism. Only the ubiquitous TV aerial, appearing from the thatched rooftops, gives away the time as the twentieth century.

At the beginning I mentioned the masochistic aspect of brass-rubbing. Be prepared for sore knees, elbows and arms. But the 'result, when done well, is worth every ache and pain. Happy rubbing!

The ITCH—by Brian P. Grover, 1961 (#15)

(Brian P. Grover—a 1961 Fellow from the University of Manitoba. Brian spent, two years in this country, the first two 6 month periods with different firms and the second year at the London School of Economics.)

Nobody tells you that accepting an Athlone Fellowship exposes you to a special disease that can upset you, during the rest of your life. There is probably a fancy Latin name for it, but regardless of the name, everybody recognises the affliction by the symptoms: itchy feet.

Take a healthy, active, normal Canadian engineer. Transport him (or her) across 3,000 miles of Atlantic Ocean. Expose him to Britain for a year or two. Tempt him with the entire continent of Europe just half an hour away. Then return him to Canada and expect him to live and work contentedly in his former environment for the rest of his days. Does it ever happen like that?

It would be interesting to compare the annual expenditure on travel of former Athlones with those of other engineers in. their peer group. I suspect such statistics would demonstrate that the habit of finding new places is difficult to lose. I would also expect that many Fellows manage to do a fair bit of travelling in the course of their work—deliberately.

The experience of having received an Athlone Fellowship can provoke periodic spells of wanderlust. It also provides particular qualifications for engineers who want a job which allows them to be fairly mobile. I am referring to work in the field of international development.

If you stop and think about it, Athlone Fellows often have the kind of background which can be valuable in this expanding area. Excellent technical training, followed by graduate work or specialised experience in a completely different environment; an understanding of another country's culture, and the experience of living and working away from home; and, as a Canadian, familiarity with both the English and French traditions.

It happens that Canada's history and her present role in world affairs makes Canadians fairly acceptable as helpers in developing nations. After all, isn't Canada a former: colony and an under-developed country, trying hard not to be pushed around by the big rich countries? And haven't Canadian engineers used their ingenuity to help solve the many technical problems in our sparsely settled land? Our reputation in specialised fields such as communications, transportation, electric power and agriculture is appreciated abroad. People in developing countries realise that the pragmatic approach necessary to achieve economic development with limited resources—an approach particularly necessary in Canada—is often appropriate in their lands.

That our former prime minister was asked to head the Commission on International Development, which last year submitted its significant report on this fundamental world problem, is a credit to the stature of Canada in this field as well as to Mr. Pearson.

In these times there are more and more opportunities for Canadian engineers to use their talents in the challenging field of international development. And this is a growth area. The opportunities exist with government agencies, manufacturing exporters, public utilities, construction companies, international agencies, consulting firms, universities—almost all spheres of activity. Finding these opportunities is simply a matter of looking for them.

For lack .of a better example, take me. The year after returning from the Athlone Fellowship I spent many months in the north of a greatly underdeveloped region called Manitoba, in the bush along the Nelson River, working with Cree Indians who were not overly impressed with the statistics of their country's modern, technological economy. Maybe Winnipeg was much too sophisticated after that experience, because by the end of the next year I was in a different developing region: Kenya needed water resources engineers and the Canadian International Development Agency (C.I.D.A.) wanted to help so they agreed to send me. For 3 1/2 satisfying years I learned a lot about supplying water to people; during most of that period I was in Mombasa, running a government department responsible for about 15 public water supplies in the Coast Province. You can imagine the kind of memorable experiences that situation produced. And since 1969 I have been based in a different kind of frontier town—Washington DC. With the World Bank (which finances, among other things, water resources projects) I have been to Manila, Nicosia, Hong Kong, Belgrade, Singapore, London and points en route in the past years. And the Bank provides a salary too!

Many other Athlones have chosen similar careers, and in our shrinking world the opportunities to work in the field of development, home and abroad, are bound

to increase. The rewards for such work, including satisfaction, challenge, experience, remuneration and travel, are attractive. If you find yourself in the doldrums more than you like, why not think about getting involved?

As an Athlone Fellow you have a head-start—and a good head. So instead of day-dreaming about the pleasures of the past, drooling at the travel posters, or envying your boss and his annual convention trip to Moose Jaw, why not see if you can get involved in international development? It might be a cure if you suffer from the itch.

Extracts from the Athlone Newsletters

Athlone Part 3

RL Bob Hemmings 29 December 2018

3rd Revision

October 2021

Contents—Part 3

Introduction	5
Extracts from Each of the Newsletters	5
Athlone Fellowship Newsletter #1, December 1956	6
Foreword by Major General The Right Hon. the Earl of Athlone	6
Athlone Fellowship Newsletter #1, Managing Committee	7
Origin and History of the Scheme	8
Athlone Fellowship Newsletter #2, January 1958	11
Foreword by Sir Arthur P. M. Fleming, C.B.E.I.D. Eng., Ll	11
The Earl of Athlone	13
Note by Sir Norman Kipping, J.P., BRITAIN AND CANADA	15
Note by Dr. H. H. Burness, C. B. E.	19
SELECTION TOURS	19
Selection Boards	20
Contacts with Industry & Research Establishments	21
Note from the Managing Committee in the United Kingdom	22
Athlone Fellowship Newsletter #3, January 1959	25
Foreword	26
The Viscount Caldecote, D. S.C., M.A	27
CONFERENCE OF ATHLONE FELLOWS, 1958	30
Summary and Comment	35
Information	35
Clarification	35
Flexibility	35
Industrial training	36
Note from the Managing Committee in the United Kingdom	36
Athlone Fellowship Newsletter #4, January 1960	40

	Foreword by Sir Julian Pode, J. P.	. 40
	Note from the Managing Committee in the United Kingdom	. 41
	Obituary—Richard Francis Chritchley	. 43
	Note by Dr. A. C. Monkhouse, C. B. E.	. 44
	Note by G. S. Bosworth—TRAINING IN INDUSTRY	. 46
	Tributes to Dr. H. H. Burness, C. B. E., by past Fellows	. 48
A	thlone Fellowship Newsletter #5, January 1961	. 50
	Athlone Fellowship Newsletter #6, January 1962	. 51
	Foreword by Sir Julian Pode, J. P.	. 51
	Note from the Managing Committee in the United Kingdom	. 51
	Note by Dr. A. C. Monkhouse, C.B.E.	. 52
	Note by F. E. A. Manning, C.B.E.	. 54
	Tributes to Dr. A. C. Monkhouse, C.B.E.,	. 54
	More Tributes to Dr. A. C. Monkhouse, C.B.E.,	. 56
A	thlone Fellowship Newsletter #7, January 1963	. 57
	Forward by Sir Julian Pode, J.P.	. 57
	Managing Committee Report	. 57
	Athlone Fellowships Conference, 1962	. 58
A	thlone Fellowship Newsletter #8, January 1964	. 60
	Forward by Sir Julian Pode, J.P.	. 60
	Newsletter No. 8 Managing Committee Report	. 60
	The 13th group of Fellows:	. 61
	Athlone Fellowships Conference	. 61
	Comments and Advice on Current conditions in Britain	. 61
	Selection Tour for the 1963 Awards	. 62
A	thlone Fellowship Newsletter #9, January 1965	. 65
	Forward by Sir Julian Pode, J. P.	. 65

Athlone Fellowships Conference, 1964	66
The 1964 Group	67
Selection Tour for the 1964 Awards,	67
Athlone Fellowship Newsletter #10, January 1966	69
Forward by Sir Julian Pode, J.P.	69
Newsletter No. 10—Managing Committee Report	69
Selection Tour for the 1965 Awards	70
Athlone Fellowship Newsletter #11, January 1967	72
Foreword By His Excellency The High Commissioner For Canada	72
Newsletter #11—Managing Committee Report	73
Selection Tour for the 1966 Awards	73
Athlone Fellowship Newsletter #12, January 1968	75
Foreword By Sir Maurice Fiennes, C. Eng., M. I. Mech. E	75
Newsletter No. 12—Managing Committee Report	75
Selection Tour For The 1967 Awards	76
Athlone Fellowship Newsletter #13, January 1969	78
Management Committee Comments	78
Selection Tour for the 1968 Awards	78
Athlone Fellowship Newsletter #14, January 1970	80
Managing Committee Report	80
Interview tour for the 1969 Awards	80
Honorary Degree for Mr. F. E. A. Manning (Adviser)	81
Report of the Working Party on the Industrial Training of Overseas Nationals .	82
Athlone Fellowship Newsletter #15, January 1971	84
Managing Committee Report	84
Interview Tour for the 1970 Awards	84
Further University Honours For Dr. F. E. A. Manning (Adviser)	85

Retirement Of Mr. T. W. Turner MBE.,	86
Athlone Fellowship Newsletter #16, January 1972—The LAST ONE	87
Foreword By Sir Maurice Fiennes, C.Eng., F.1.Mech.E.	87
The Athlone Newsletter #16—Managing Committee Report	87

Introduction

In 1956 the Athlone Fellowship organizers, at the suggestion of an Athlone Fellow, began publishing Annual Athlone Fellowship Newsletters. The Newsletter itself was suggested by *John Godfrey* (1954, *Manitoba*) and No.1 was issued in December 1956. Except for a change of format in January 1969, it has appeared in exactly the same form yearly until the last number (16). I have used the information in these Newsletters as background for the Athlone History Document. But, more important, I was able to get a feeling as to how the Fellowship was developing, and how satisfied were the organizers of the Athlone Fellowship operations. The most "official portrait" of the Fellowship I gained from the portions extracted here, the Forward, the Management Committee Notes, the Special Notes that were marking transitions in the Management staff, Notes on Conferences, Notes on the Selection Tours, and other notes that I felt were relevant.

Extracts from Each of the Newsletters

Fortunately, because of the cooperation of several Fellows, especially of the long-missing original newsletters, **all** have now been recovered, the last ones thanks to Ben Smith, Athlone 1959, and to Earle Lockerby, Athlone 1964, both from Dalhousie; and are now being "captured" from the pdf-format into Word format prior to be integrated into existing documents. Now I can say that I have pdf copies of **all 16** of the Athlone Fellowship Newsletters. Many thanks to all the Fellows who shared their copies with me, and those who undertook the mission of locating those missing ones. Many thanks!

And, to compile the information, I was able to copy directly from the pdf files into Word files, using a variety of programs to "read" the pdf versions and deliver the material to a Word document. I tried various schemes, some cost more money after a short free trial, and some were more flexible, and one was even free. And it was the most useful one for me, as I had started this project in Word. That program is called Microsoft Lens, which works with Word for iPad. This was excellent, except for an issue of taking "i" as being either a "1" or an "1", or "I". So every word with an "i" needed checking, taking a lot of time. Also, in many cases, the corrections were made in USA English, with American rather than British or Canadian spelling. Please excuse the author for not "correcting" back to British spelling.

Athlone Fellowship Newsletter #1, December 1956

Foreword by Major General The Right Hon. the Earl of Athlone

K. G., G. C.B., G.C.M. G., G.C. V.O., D.S.O. (Governor General of Canada 1940-45).

The Scheme for granting Fellowships to the United Kingdom to Canadian engineering students has abundantly justified the hopes of those through whose faith and imagination it was inaugurated five years ago.

Nearly 200 Canadian graduates who have benefited by the Scheme have, I believe, been able to testify that the United Kingdom is second to none in the quality of its technical training and in the importance attached to the most up-to-date engineering practice by many branches of Industry.

Of no less importance, however, is the way in which the scheme has enabled many young Canadians to see something of our way of life in Britain and to make many valuable and enduring friendships. I wish them every good fortune in their careers and I hope they will visit us again in the future.

I have, over a long period, been associated in one way or another with a number of educational schemes, but I know of none more deserving of continued encouragement than this Fellowship Scheme to which I have been privileged to give my name.

(Signed) Athlone

athlone

Athlone Fellowship Newsletter #1, Managing Committee

The Managing Committee for the Athlone Fellowships Scheme hope to issue periodically a News Letter which will become a source of information and means of communication among past and present Fellows and others interested in the Scheme.

The Committee, speaking on behalf of all the interests represented on it, wish in the first place to thank most sincerely His Excellency the Governor-General and all those in Canada who have from the first welcomed the Scheme and done so much to make it successful.

In particular, they would thank the Presidents and Deans and Professors of Engineering of the universities for their part in encouraging so many of their best engineering graduates to apply for Fellowships, and for their organization of the selection procedure and friendly and effective co-operation with the United Kingdom representatives in Canada.

The co-operation of the Engineering Institute of Canada, the provincial professional engineering associations, and all employing organizations, private and public, in Canada, is a source of great satisfaction to all those connected with the Scheme in the United Kingdom.

The Committee also wish to express their warm appreciation of the friendly assistance of Industrial firms, universities and research establishments and public authorities in the United Kingdom without which the Scheme could not succeed.

This first Letter is being sent not only to all past and present Fellows but also to engineering faculties in Canadian universities, the Engineering Institute of Canada, Provincial professional engineering associations, actual or prospective employers In Canada and to United Kingdom officials throughout Canada, and to organizations, universities and firms in the United Kingdom.

If the News Letter is to be of value not only to Fellows past and present but to all others who receive it, the first step is one in which obviously all Fellows can help, that is to keep the Athlone records up-to-date. The Managing Committee will therefore be glad if Fellows, past and present, will complete the tear-off slip on page 5 and send it to the Secretary, Athlone Fellowships Managing Committee, Ministry of Education, Curzon Street House, Curzon Street, London, W. I. , England.

The Committee wish to keep in touch with all Fellows and also to help Fellows to remain in touch with one another and to exchange items of news. They will, therefore, welcome for publication in future issues of the Letter, notes of past and present Fellows about their experiences while in the United Kingdom and are particularly anxious to hear from past Fellows of their careers in Canada, their progress in their employment and any incidents or items which interest other Fellows or any of the other recipients of this Letter, both in the United Kingdom and in Canada.

In short, the Committee hope that the Letter will become a pleasant and interesting means of retaining contacts among all interested in the Scheme. They will be glad of suggestions for the improvement of the Scheme from Fellows, their employers or universities in Canada, and from employers and universities In the United Kingdom.

Origin and History of the Scheme

The origin of the scheme is probably well known to you. During the years immediately after the war, a number of missions visited Canada with the object of finding out what might be done to increase British exports to that country. From the reports of these missions it was clear that there was an educational aspect to the problem which merited investigation. Some Canadian graduates were coming to the United Kingdom for post-graduate work but more were going elsewhere. Thus, young Canadian engineers were becoming increasingly familiar with the products and resources or organizations elsewhere but were having fewer opportunities of becoming knowledgeable about those of corresponding organizations in the United Kingdom. Clearly therefore anything that could be done to increase these opportunities would help to foster links in the technical field between the United Kingdom and Canada. The matter was considered by the United Kingdom authorities concerned and was decided to send an eminent industrialist and an engineering educationalist to Canada to determine Canadian reaction to the provision, by the United Kingdom Government, of a Scheme of Scholarships which would not only familiarize Canadian engineering graduates with British Industry and its products but at the same time increase their knowledge of the way of life and thought of the people in the United Kingdom and thus strengthen the existing ties between Canadians and British.

Sir Arthur Fleming accepted an invitation to explore these matters in Canada, and, accompanied by Dr. Abbott of the United Kingdom Ministry of Education, toured from coast to coast during the Spring of 1950. This Mission, having obtained the reactions of representative Canadian organizations and individuals, reported to the United Kingdom authorities and the result was the institution of the Athlone Fellowships Scheme, a Scheme which is honoured by the name of Major General the Right Hon. the Earl of Athlone, Governor-General of Canada from 1940-46 whose Message to Athlone Fellows is the foreword of this, the first, Issue or the News Letter.

Under the Scheme, 38 Canadian engineering graduates are brought to the United Kingdom annually for post-graduate work extending over two years in Industry or in a university or in certain cases In both Industry and university. All expenses of travel from the Fellows' homes in Canada to the places of study In the United Kingdom, the cost of tuition fees, books and travel in the United Kingdom, along with a maintenance allowance, are provided by H.M. Government In the United Kingdom.

Of the Fellowships awarded each year, 28 go to graduates on completion of a Bachelor's or a higher degree, (Group A), and 10 to engineering graduates who have spent some time in Industry or research following graduation, (Group B). In order to distribute as widely as possible the 28 Group A awards, each Canadian university having an engineering faculty is given a quota based on the total number graduating from it. The Fellows are chosen by Selection Boards convened by the Dean Of the Engineering Faculty of the university concerned, assisted by an Adviser from the United Kingdom, a representative of the U.K. High Commissioner in Canada and the U.K. Trade Commissioner in the area.

The Scheme is managed in the United Kingdom by a Committee representative of Industry, the universities, the British Council and Government Departments. The present composition of the Committee is set out on Page 1.

The first Fellows arrived in the United Kingdom in September, 1951. Since then five further groups have taken up their awards.

So far 137 men have retuned to Canada. Of these, 20 had stayed on in the United Kingdom for varying periods after the expiration of their Fellowships in order to complete the requirements for degrees, while four had stayed on to gain further Industrial experience. Of the 84 men at present in the United Kingdom, 11 have completed the two years' period of their Fellowships and are staying on to finish their work for higher degrees or to further Industrial experience.

Of the 221 Fellows who have come to the United Kingdom since the Inception of the Scheme, 83 have had two years' university training, 54 two years' Industrial training and 84 one year in University and one year in Industry. The numbers of individual's studying the various branches of engineering In the United Kingdom are as follows:

Mechanical	
(Including Production Engineering and Administration)	53
Aeronautical	23
Light Electrical	40
Heavy Electrical	9
Civil	45
Chemical	18
Physics	1
Forestry	1
Metallurgy	14
Metalliferous Mining	1
Petroleum Technology	1
Physical Chemistry	2
Nuclear Physics	3

Reports by the Fellows and by their employers and university tutors are received regularly and indIcate that the Scheme is working very satisfactorily and is achieving its objects. United Kingdom universities and firms have co-operated with enthusiasm and have given very valuable assistance. While isolated training difficulties arise here and there, there is no doubt that in general Athlone Fellows have found that the programs arranged for them have been most satisfactory. The Scheme has made a promising start: all those connected with it—Fellows, Tutors and the Managing Committee—can look forward to the future with hope and confidence.

Athlone Fellowship Newsletter #2, January 1958

Foreword by Sir Arthur P. M. Fleming, C.B.E.I.D. Eng., Ll.

(Chairman of the Managing Committee in the United Kingdom).

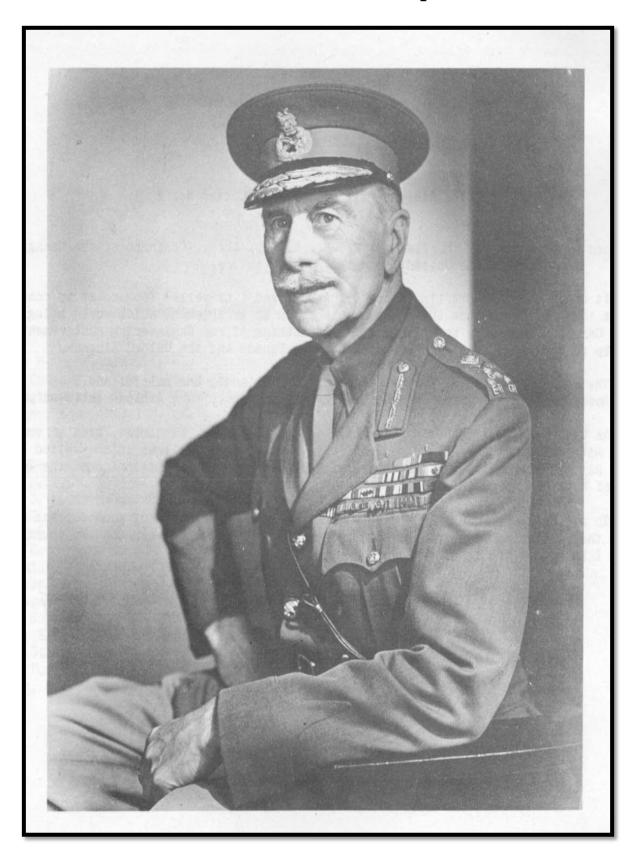
It seems such a short time since Dr. Abbott and I travelled from coast to coast in Canada to discover whether there was a place for an arrangement which would bring young Canadian Engineers to Britain to see something of our Engineering achievements and to help to develop mutual understanding between Canada and the United Kingdom.

The reception given us at that time was most friendly and helpful and H.M. Government In the United Kingdom decided to Institute "The Athlone Fellowships".

As Chairman of the Managing Committee in London I have, of course, been in very close touch with the working of the Scheme and have met very many Fellows In the United Kingdom. I can say without hesitation that the high hopes we held at the beginning of the Scheme in 1950—51 have been more than justified.

To all Fellows, past, present and future I wish the very best of good fortune and trust they will find great pleasure in maintaining the links between the two countries which I know they are forging.

apm. Heming



The Earl of Athlone

Readers will have learnt with deep regret of the death of the Earl of Athlone on the 16th January, 1957, at the age of 82. The Earl's death occurred at Kensington Palace, where he had been living in retirement after a long and distinguished career In the service of the Crown that had taken him to many parts of the world.

Canadian readers will of course remember him with affection as their Governor-General during those critical years from 1940 to 1946. Happily there is a living link which will perpetuate this war-time association—the Athlone Fellowships Scheme—honoured by the name of the Earl, will, it is hoped, continue to foster those good relations between Canada and the United Kingdom which were for so long his concern.

It is considered fitting that this second News Letter of the Athlone Fellowships Scheme should include tokens of Canadian respect and esteem for the Earl. The paragraphs which follow are taken from the Obituary Notices which appeared in the Canadian press:

"The Earl of Athlone, dead in London at the age of 82, was a legacy from the days of VICTORIA. A Prince by birth, a brother of Queen MARY and married to VICTORIA's grand-daughter, he was an aristocrat of the aristocrats, laden with titles, decorations and honours, many of them from foreign lands.

But he was an aristocrat who never held aloof from public duty, who had a passion for service, and in peace as well as war he served England, the Empire and the Commonwealth with devoted distinction.

Perhaps his most notable public accomplishment was when as Governor General of South Africa, a post which he accepted In 1923, he won the esteem and confidence of National 1st extremists and probably kept South Africa In the Commonwealth.

And equally successful, if in a different way, was his part as Governor General of Canada. Rideau Hall may have had more spectacular or more energetic occupants; it never had one more democratic nor more devoted to his task. This man was a member of the Royal Household, but no one could have put on fewer royal airs nor held himself less aloof from all classes of our people.

Interested in everything, he loved nothing better than quite fireside chats over a whisky and soda with people who might have interesting things to tell him,

and there were occasions when he put aside the cares and dignity of his office to spend an evening of good talk and fun with a few congenial 'cronies'.

But England, the Empire and the Commonwealth were his first loves-he had served them in three wars and there was nothing he would not sacrifice to serve them in peace.

To sum him up, he had the simple and rugged honesty, the kindness and passion for service which have made the British Royal family beloved by British peoples and respected by the world.

To his widow, the Princess ALICE, she whose family motto is "fearless and faithful" Canadians extend their deepest sympathy.

"For many Canadians who were privileged to meet the Earl of Athlone and his wife, Princess Alice, when he was Governor-General between 1940 and 1946, there will be a sincere regret that his long and useful life hag come to an end. Rarely, Indeed, has the Governor-General been a more popular figure, and never have the arduous duties of the office been discharged with more grace and enthusiasm than during the Earl's extended term.

In all the activities of his long life, the Earl of Athlone was greatly aided by the charm and practical spirit of his wife, Princess Alice. She shared to the full the general respect and affection accorded her husband. To her in this hour of loss, we Join our fellow Canadians In expressing the full measure of our sympathy.

The Earl of Athlone, who died yesterday in London was probably the only person to be selected twice for the post of Governor General of Canada. He was named in the summer of 1914 and was preparing to cross the Atlantic when war broke out. Released from the appointment, he entered active service, winning, among other honors, the French Legion of Honor, the Croix de Guerre and the Belgian military medal. And It was during the critical years of World War Two that his second appointment came. The third close relative of a reigning sovereign to become Governor-General, he proved an able and popular representative. His interest in Canadian affairs remained with him in later years, and found frequent expression in his reported utterances.

"Across the nation there will be sadness at the death of the Earl of Athlone, Governor-General of Canada from 1940 to 1946. And there will be memories evoked of visits by the Earl, and Princess Alice, to hospitals, factories and military establishments throughout the country.

"For his term of office—he was the sixteenth Governor General—covered practically the whole of the war years, witnessing a gigantic war effort and a seven-fold expansion of Canadian Industry.

He was the second member of the Royal Family to be appointed Governor General of Canada, the first being the Duke of Connaught. And Just as the Duke of Connaught seemed to be a living symbol of Canada's contribution in the First World War, the Earl of Athlone continued in this realm during the second conflict.

His sincere love of people and desire to meet them was a leading characteristic. In 1917 he discontinued the style and title of Serene Highness' and 'Prince' and assumed the surname of 'Cambridge'.

The Earl never lost an opportunity to give hope and encouragement during those darker days, and addressing a student body at McGill University he referred to the rather introspective and morbid young people' who saw nothing but blank despair in the future. If these young people who share such despondency, he observed, could be made to realize that they are the people we are looking for In the future, that they are the ones to rebuild and reconstruct the world, I am convinced that they would take heart again.

There will always be an important place in Canadian history for the gracious Governor General who quietly pleaded the cause of freedom of thought and liberty of conscience and for the smaller humble and harmless activities that make up daily life.

Note by Sir Norman Kipping, J.P., BRITAIN AND CANADA

Director-General of the Federation of British Industries, has kindly supplied the following note:

For her future exports and their growth, Britain looks specially to her "scientific" industries and to her pre-eminence in the discoveries and developments in scientific fields, and to high quality specialized goods in the older Industries.

Britain can afford nothing out-of-date in her Industrial methods, and during the last ten years there has been a vast move forward In re-equipment and mechanization and in the introduction of countless new products and new industries. Indeed, so

rapid is the rate of change that forecasts about the pattern and value of exports a few years ahead have become of doubtful value for a new reason; much that will be sold even five years from now is still undeveloped, and much that will be sold ten years hence is today almost unimagined.

Certainly, ten years ago few would have dared forecast that our Calder Hall Atomic Power Station would have been successfully running by 1956, justifying the establishment of a £900 million programme of further stations In the next few years. These new stations are not to be mere copies of one another. Their design and construction are In the hands of five great groups of companies.

Thus power from atomic sources will become a significant factor in our fuel budget many years sooner than forecast, strengthening our economy at many points. In view of our growIng long-term needs, the United Kingdom Atomic Energy Authority has negotiated a contract with Atomic Energy of Canada, Ltd. for the supply of uranium and the \$41 million investment by the Rio Tinto Group in the Blind River uranium development constitutes the largest single item of post war investment by British private capital in Canada to date.

In the field of radioactive isotopes, we remain the biggest exporter in the world, and I am told that the development of new applications in this field is at the rate of one a week.

Turning to aircraft, we have captured world markets for gas turbine aero engines, Rolls Royce alone having orders for over 2,000, which Is well over half the outstanding orders In the world. And the De Havilland Gyron, Rolls Royce Conway and Bristol Olympus engines have, of course, the highest thrust figures In the world.

As to aircraft themselves, 368 Viscount turbo-prop airliners have been ordered by 33 air lines, 6 Governments and 5 private organizations, a considerable proportion In Canada and the United States; and 220 of these have been delivered. Now the Britannia turbo-prop airliner is getting into her swing–70 were sold or on order last year, five for a U.S. airline; 34 Comet IV pure jet airliners were on order, 14 for a U.S. operator.

Trans Canada Airlines have ordered 20 Vickers Vanguard Turbo-props with an option on 4 more. This order is of special interest as being the largest single commercial

dollar-export order since the war, the total value (with spares) being €24 million. Then of course we are making Gnat fighters and Canberra Bombers for India, Sea Hawks and Hunter trainers for the Netherlands, Pembroke transports for Denmark, helicopters and Heron air liners for many countries.

In our traditional ship building Industry, one of our most notable achievements recently has been the building of the latest trans-Atlantic liner, the Empress of England, which was launched in May last year and is now in service with the C. P. R.

Other engineering products cover such a varied field that any full survey is beyond the scope of this note.

I will pick out for mention the manufacture of contractors' plant—earth—moving equipment and other associated machinery. The development and output of this type of machine have been remarkably rapid since the war, and have reached now some £80 millions a year, almost a half of which is exported.

A British firm has recently produced one of the largest walking dragline excavators in the world, with a bucket of 20 cubic yards capacity on a 282 foot beam. This is used for open cast coal mining, a field in which 9, 000 men do work which, by the methods of last century, would have taken 500, 000.

We are. producing, too, an Increasingly wide range of crawler tractors, which used to be supplied exclusively by the United States. A British firm has produced a tractor-towed "train" which carries out the whole process of soil stabilization, pulverizing the soil to sufficient depth, spreading and mixing the additive and compacting the mixture in a single traverse of the site.

Of many remarkable achievements in the electrical field the transatlantic telephone cables made In England and laid by a British cable ship are a remarkable example. The quality of speech transmitted by these cables Is almost perfect. Now work is going on for the design and manufacture of a power cable to link Britain with the continent of Europe. Equally remarkable developments have occurred in machine tools, office machinery, electronic control gear of many types and In great variety, mechanical handling equipment, air-conditioning machinery, agricultural machinery, machines for making synthetic fibers, spraying machinery, diesel

locomotives, and even in prefabricated buildings, and all are contributing notably to British exports.

Only last month (October 1957) a British firm (Metro-Vickers) secured a \$25 million contract, against competing bids from seven other companies in the United States, Germany and elsewhere, to supply steam turbine generating equipment to the B.C. Electric Company for the rapid power development which Is taking place In the Vancouver area. Another British firm (English Electric) Is supplying sixteen 75,000 H. P. water turbines costing \$7.5 million for the hydro-electric development In the International Section of the St. Lawrence Seaway.

In the space of 26 years, the consumption of the United Kingdom aluminium industry has grown from 25,000 to some 400,000 tons a year. Much of it goes into products which are exported, such as ships, vehicles and electrical products.

Britain now has in service her first two all-aluminium bridges, while she has pioneered the use of aluminium in constructing large structural members, such as the huge hangars at London Airport, and the booms of very large dragline excavators.

We rely on Canada for most of our supplies of aluminium Ingot (over 300,000 tons). It was on account of this vital and growing need that the British Government, even at a time of acute dollar shortage, helped to finance the Kitimat-Kemano project of the Aluminum Company of Canada. Likewise the British Aluminium Company is now going ahead, through a Canadian subsidiary, with its plans for the eventual annual production of 145, 000 tons of aluminium at Bale Coseau.

Throughout, British industry is expansionist in feeling and scientifically and technically advanced, and sees clearly that its future rests upon its ability to retain its leadership. A significant part of our growing trade with Canada—and our increasing investment in Canada—is going, as I have indicated, into the development of Canadian resources which help in turn to feed our own Industrial needs. And the more we can earn by our dollar exports the more fully we can contribute to this Industrial partnership.

N.K.

Note by Dr. H. H. Burness, C. B. E.

Adviser to the Athlone Fellowships Scheme

SELECTION TOURS

From a fireside In London the prospect of a 13, 000-mile return journey across the Atlantic and across Canada in January and February does not appear particularly attractive, zero temperatures being practically unknown and sub-zero unheard of, the anticipation of a prairie climate of "40 below" is not cheerful. But then that was because I had no experience of the Canadian way of life: of minimum temperatures of 70 degrees in all inhabited enclosures: houses, offices, hotels, universities, trains, aircraft, and even ice hockey arenas. I now realize that I have less cause for terror than have young Canadians coming to spend two winters In the United Kingdom without the luxury of central heating.

In fact, the Athlone Fellowship Selection Tour is one of the most pleasant and exhilarating experiences one could wish for. The enthusiastic Interest, the friendly attitude, and the hospitality of the Canadian universities are outstanding. Relatively few individuals from the United Kingdom and, in fact, very few Canadians, can have similar opportunities of seeing so much of Canadian universities in a few weeks, or of meeting and talking with such a fine cross-section of Canadian young men.

One striking feature which can be realized only by people who have the opportunity of "stopping off" at centres all across Canada from the Maritimes to Vancouver is that while every part is definitely and essentially Canadian, there are many Canadas: not only "Eastern" and "Western"—and where is the dividing line, the Rockies or the Laurentians?—or French Canada and Anglo-Saxon Canada? Most unfortunately, there is no opportunity to see Canada except when it is snow-covered, otherwise, probably many more Canadas would be discovered.

Certainly I have found that courtesy, readiness to assist a stranger, hospitality and imagination are not confined to any particular areas or to any particular groups of people: from professors, deans and presidents of universities, and vice-presidents and presidents of large Industrial organizations, to the dining-

car waiter who produced a large "scotch" from an imaginary bottle in my bag in the parlour-car on a Sunday evening train Journey.

Selection Boards

The Canadian universities and Athlone Fellows are well aware of the details of the selection procedure, but others who read this Letter may be interested to know the arrangements.

There is set up at each university a selection board of which the Dean of Engineering is Chairman; other engineering professors are members, together with a representative of local Canadian Industry, the United Kingdom Trade Commissioner for the area, a member of the United Kingdom High Commissioner's staff from Ottawa, and the Adviser to the Athlone Fellowships Managing Committee in the United Kingdom.

The candidate's academic record, particulars of his extra-curricular activities, etc., are before the board; the candidate is called in and introduced by the Chairman to the individual members. Much of the questioning of the candidate falls to the Adviser, who, being responsible for placing the successful candidates in the United Kingdom, wishes to find out the candidate's main interests, his possible future career in Canada and his reasons for desiring the particular programme of training in the United Kingdom which he has outlined on his application but on which he may subsequently have changed his mind. Other members of the board also question the candidate on his technical and other Interests.

When all candidates have been interviewed, the individual members of the board place them in order of merit, taking into account all relevant factors. The successful candidates are notified immediately, as far as the 28 **A Group** candidates are concerned. Decisions on the 10 **B Group** candidates who have graduated in previous years and are not necessarily interviewed at their own universities are taken at the end of the tour.

There is no allocation to or preference for particular branches of engineering, and all the fields for which instruction is provided in the universities, have produced successful candidates.

Contacts with Industry & Research Establishments

If the scheme is to be of maximum benefit to Canadian and United Kingdom Industry, it is essential that those responsible for the placing of Fellows in industry and universities in the United Kingdom should have some knowledge of Canadian industry and of its wishes and needs regarding technical, scientific and executive manpower. It has, therefore, been agreed that during the selection tour the Adviser should see something of Canadian Industrial plants and have an opportunity of consulting executives as to how the Intentions of the scheme can be forwarded. In this connection, it is important to take into account the differences in the organization of Industrial plants and of the educational systems in the two countries.

The reception accorded to the Adviser and his colleagues by Industrial executives could not have been more helpful or hospitable.

During the 1955, 1956 and 1957 tours 26 Industrial plants were visited. They included large non-ferrous smelting plants and heavy structural engineering works, atomic energy and hydro-electric power plants including Chalk River and Niagara; heavy and light electric engineering, pulp and paper plants, and a cereal plant.

The extremely rapid industrial expansion in Canada is, of course, realized by most people in the United Kingdom, but it is only by visiting plants that any real idea can be obtained, not only of the scope and volume of industrial development, but also of the extreme rapidity with which the most up-to-date scientific knowledge and techniques are being developed and applied. One has in mind nuclear energy, radar and aero-photographic survey methods, the use of geophysics and geochemistry in prospecting, the applications of servo-mechanisms and computers, and all the apparatus of what has come to be called "automation". It Is quite clear that the universities in Canada are introducing undergraduate engineers to all these aspects, and the great majority of the candidates for Athlone Fellowships wish to study and see the application of these various methods in the United Kingdom.

In such a situation it is, of course, also important to see something of the work of the Canadian research establishments, and visits have been paid to Chalk River, National Research Council centres in Ottawa and other places, the Institute of Aerophysics in Toronto, and also to service establishments such as C.A.R.D.E. and the F.C.N. Research Station at Halifax.

This brings to mind the fact that a high proportion of successful Athlone
Fellows hold reserve commissions in the technical branches of all three Canadian
Armed Services. Some four or five regular officers have also been awarded
Fellowships on the grounds that they were on short-term engagements or had special
interests which brought them within the spirit of the scheme.

Discussions on the most friendly basis with the Canadian Services have, however, shown that, in view of the reorganization of training programmes and other considerations, officers with regular Canadian Service commitments should not in future be accepted as candidates.

In Athlone Fellowships News-Letter No 1, of December, 1956, the Managing Committee expressed its appreciation of the interest and help of various persons and organizations in Canada. May I, at this stage, add my personal thanks to all those who make the selection tours so pleasant, interesting and exhilarating. In addition to all Canadians and Canadian organizations, academic and industrial, I must thank colleagues in the United Kingdom Government service, In the High Commissioner's Office in Ottawa, and Trade Commissioner and Information Officers in all the provinces for their assistance and advice on all possible occasions.

Finally, may I make a plea that past and present Fellows will make contributions to future issues of the News Letter which is, after all, intended primarily to be a means of communication among Fellows for exchange of experiences and news of progress.

H. R. B.

Note from the Managing Committee in the United Kingdom

The Managing Committee for the Athlone Fellowships Scheme have pleasure in issuing this second News Letter to past and present Fellows and to the many friends of the Scheme on both sides of the Atlantic. The enthusiasm with which the first Issue was received by all concerned was greatly encouraging to the Committee and satisfied them that there was a place in the scheme of things for such a means of communication among Fellows and others interested in the project.

Readers may be interested to have some information as to the distribution of the first Issue of the News Letter. Copies were, of course, sent to all Fellows, past and present.

Others were sent to about 100 firms In Canada and to those organizations in the United Kingdom which had taken Fellows for training, about 80 in number. The Canadian universities received copies and some 160 copies were distributed among the universities and technical colleges in the United Kingdom at which Fellows had worked. Copies were also sent to the major engineering institutions in the United Kingdom and to the Agents-General for the Canadian Provinces. The Committee regard this distribution as satisfactory, but it is hoped that for this second Issue an even wider circulation will be possible. Readers wishing to have additional copies can obtain them on request from the Secretary to the Athlone Fellowships Managing Committee at the Ministry of Education, Curzon Street, London, W. I., England.

The Committee were a little disappointed that despite the enthusiasm with which the first Issue was received, no contributions for inclusion in subsequent issues were forth-coming. They therefore reiterate that they will welcome notes from past and present Fellows about their experiences in the United Kingdom, and are particularly anxious to hear from past Fellows of their careers in Canada, their progress in their employment, and any incidents or items which would interest other Fellows or any of the other recipients of the Letter from universities and employing organizations both in the United Kingdom and in Canada. They will also welcome contributions for the Letter from universities and employing organizations both in the United Kingdom and in Canada on any matter which would be of interest to persons connected with the Scheme and particularly any suggestions for its improvement.

The managing committee are also anxious to receive from all past Fellows, information to keep their records up-to-date. They will, therefore, be pleased if these Fellows will complete the tear-off slip on page 13 and send it to the Secretary, Athlone Fellowships Managing Committee, Ministry of Education, Curzon Street, London, W.1.

Since the issue of the first News Letter the 1957 Group of Athlone Fellows has arrived in the United Kingdom and the number of Fellows who have returned to Canada is now 171. Of these some 30 remained in the United Kingdom after the period of their Fellowship, 24 to complete work for higher degrees and 6 to extend their Industrial experience. There are at present in the United Kingdom 73 Fellows who have not yet completed the two years of their Fellowship and a further 14 who are extending their stay beyond the period of their Fellowship.

Of the 258 Fellows who have come to the United Kingdom since the Scheme's inception, 105 have had two years' univers lty training, 51 two years industrial training and 102 mixed experience of one year in university and one year in industry. The number of Individuals studying the various branches of engineering In the United Kingdom are as follows:

Mechanical (Including Production Engineering and Administration)	58
Aeronautical	29
Light Electrical	48
Heavy Electrical	10
Civil	52
Chemical	20
Physics	2
Forestry	1
Metallurgy	16
Metalliferous Mining	2
Petroleum Technology	1
Physical Chemistry	3
Nuclear Physics	3
Nuclear Chemistry	1
Nuclear Power	11
Environmental	1

Reports by the Fellows and by their employers and university tutors continue to indicate that the Scheme is working satisfactorily and is achieving its aims. The universities and the increasing number of firms in the United Kingdom which have

accepted Fellows for training are enthusiastic about the project and are giving it every assistance. To these friends, and to those in Canada, the Managing Committee send their sincere thanks and appreciation.

Athlone Fellowship Newsletter #3, January 1959

Athlone Fellowship Newsletter #3, January 1959

Managing Committee in the United Kingdom

Sir Claude Gibb, K. B. E., P.R. S. (Chairman)

Sir Henry Gregory, K. C.M. G., C.B. (Vice Chairman)

A. M. Holbein, Esq., C.B. E. (Federation of Civil Engineering Contractors)

D. D. Walker, Esq., M.A., M. I.E. E. (British Engineers Association)

G. S. Bosworth, Esq., M.A., A.M. 1.Mech.E., A.M. I.E. E. (British Electrical and Allied Manufacturers' Association)

C. M. Beckett, Esq., T. D., M.A., M. I.E. E. (Scottish Engineering Interests)

Professor H. E. M. Barlow, B.Sc., Ph. D., M.I.E.E., M. 1.Mech.E.

(Pender Professor of Electrical Engineering, University College, London.)

Professor D. G. Christopherson, O. B.E., B.A., D.Phil., s.M., A.M. 1. C.c., M.I.Mech.E., (Professor of Applied Science, Imperial College of Science & Technology, London.)

Professor E. G. Cullwick, O. B.E., M.A., D.Sc., M. I.E. E., F. R.S.E. (Professor of Electrical Engineering, University of St. Andrews.)

Professor S. C. Redshaw, D.Sc., Ph.D., M. I.C.E., (professor of Civil Engineering, University of Birmingham.)

J. Young, Esq. (Trades Union Congress)

Captain B. E. W. Logan, R.N. (Retd.) (Federation of British Industries)

E. N. Gummer, Esq. (The British Council)

Mrs. E. Tegart, O. B. E. (Board of Trade)

G. E. Cromble, Esq., C. M. G. (Commonwealth Relations Office)

Miss S. M. E. Goodfellow (Ministry of Education)

Dr. J. G. Strachan, H.M. I. (Scottish Education Department)

Dr. A. C. Monkhouse, P.R. I. C., M. Inst. Gas. E. (Adviser)

R. Burgess, Esq. (Secretary)

The Athlone Fellowships News Letter No. 3

Foreword

by the Right Honourable Geoffrey Lloyd, M. P., Minister of Education

I am very glad to greet all Athlone Fellows, past and present. I had the good fortune to spend some time In Toronto soon after graduating from Cambridge and a project such as the Athlone Fellowships Scheme, which enables young graduates from Canada to spend two years working and studying In the United Kingdom, has my warmest support.

It Is encouraging to find that the Scheme has already brought nearly 300 engineering graduates to this country and that additional Fellowships will be offered In 1959 for graduates from the new University Faculties of Engineering. me record of activities of Fellows still In this country is evidence that they are seizing the opportunity to benefit from the best we have to Offer In the educational and Industrial fields. I am confident that the experience gained will prove to be a lasting asset.

We In turn gain from having Athlone Fellows here as our guests. We should like to hear more Of their activities and progress following the termination of their Fellowship.

May I, on behalf of Her Majesty's Government, wish happiness and success to all Athlone Fellows, past and present.

Gw my Lloyd

The Viscount Caldecote, D. S.C., M.A.

has kindly supplied the following note:-

THE ECONOMIC IMPLICATIONS OF RECENT DEVELOPMENTS IN THE

BRITISH ENGINEERING INDUSTRY

The subject of this note is extremely broad so I have chosen a number of examples in recent British engineering developments which are to my mind of outstanding importance. Since the supply of electric power at a low price is of prime importance to our modern industrial society I would first like to say something about electrical generating equipment.

Only a fraction of the world resources in hydro-electric power have yet been used. Countries such as the UK and Japan have used up to 25% of their resources but in larger areas such as Canada only some to 15% has been utilized. Hydro-electric plant manufacture in Britain has increased by eight times since the pre-war period and since power generation in Great Britain will be primarily by thermal means this considerable output of hydraulic machinery is almost entirely for export. The size of turbines and generators continues to increase and the specifications remain stringent. This leads to the twin problems of high bearing loads, some in the region of 600 pounds per square inch, and complex governing problems which demand new techniques of control engineering such as magnetic amplifiers.

In the steam generating field we find similar advances in size and techniques. In 1945 30 MW sets were common, but now 500 MW sets are under consideration. This is largely due to the doubling of the inlet steam pressure and the raising of the inlet temperature. These increases in performance demand extensive research both in their heat transfer and metallurgical aspects.

Correspondingly alternators have increased in size. The cooling problems have been tackled by the introduction of hydrogen as a cooling medium, first by merely replacing the circulating air by hydrogen and lately by the introduction of hollow conductors through which the hydrogen circulates. The size limit of a single unit of 300 to 400 MW is determined by rotor mechanical stresses.

The most spectacular advance in power development is, however, that of nuclear energy and by 1975 some 10% of the home energy demand will be produced

by nuclear fuel. mille the Initial advances in nuclear technology were made by joint Commonwealth-American effort, the post war development of efficient power generation by British engineers has clearly outstripped all our competitors and has incidentally given an indication of what engineers can achieve when they are given scope to do a job without interference. The nuclear power station now under construction at Hinkley Point has an output of 500 MW from a two reactor assembly and this should give power at .66 pence per unit, allowing for the re-sale value of the plutonium. This compares with the present cost from fossil fuel plants of about .6 pence per unit.

For economic operation nuclear stations must operate at high load factors due to the high capital cost (£110 per kw as opposed to £55 per kW for steam stations). In order to raise the overall load factor on nuclear stations much attention has been paid to pumped storage systems and the development of reversible machines such as the Deriaz machine (developed at Rugby) in which moveable blades can be set for maximum efficiency. This pumped storage philosophy is likely to have considerable economic impact in keeping down generating costs in Britain. Again it is the material problem in the reactor which limits the steam temperatures in nuclear systems, and much development work in this field will be required to raise the overall efficiency of nuclear stations.

In the field of electronics one of the most far reaching developments has been the digital computer. Design investigations, too lengthy for manual methods, have now become a practical possibility and many routine design calculations have been "computerized". The consequent better utilization of engineering effort will have, and has had, a profound effect on our technical advance.

A less publicized, but vitally important branch of development has been in control engineering. Recently, a United Kingdom firm has supplied control equipment for a steel slabbing mill in Australia capable of delivering a peak torque of times the R.M.S. rating, with automatic control on roll speed, thickness and so forth. Furthermore, automatic programming and operation has been developed, using the, output signals from a computer to control the movements of the mill drives.

The complexity of the computers demands a high degree of reliability and the replacement of the thermionic valves by semi-conductors has been proceeding apace. Very advanced techniques are required to produce the germanium and silicon used

to the required high purity, but the advantage in reliability and absence of heating current leads to their use in such other applications as power rectifiers, in telephone exchanges and aircraft electrical systems.

The improvements which are now being made to British Railways must also be mentioned. The economic effects of a more efficient railway system could be very great and the provision of diesel electric locomotives, such as the twin Deltic 3,500 hp engine, and the much wider use of AC distribution will certainly bring this about.

Finally, I would refer to two other unrelated fields. First aircraft, the exports of which during the last year have reached a rate of £150, 000. Many aircraft and aeroengines are being made under license abroad and are competing very favourably with the strong competition from the USA. Secondly in civil engineering the so called plastic method of design has been the main recent development. This is based on the fact that a structure will not collapse until plastic hinges develop at a number of sections thus making the structure into a mechanism. This is used to calculate the ultimate collapse load and leads to a better estimate of safe working stresses with consequent savings in weight and cost up to 25%.

This review has been exceedingly brief but perhaps I nave said enough to show that British engineering is still as virile and progressive as ever it was.

CONFERENCE OF ATHLONE FELLOWS, 1958 AT BOARD OF TRADE ON 25th JUNE

Report by Athlone Fellows J. G. Foulds and W. R. Atkins who acted as General Secretaries of the Conference

The Board of Trade arranged the Conference, the first of its kind, to obtain information and opinions about the Athlone Fellowships Scheme from the participating Fellows themselves. Fifty-nine Athlone Fellows attended. The Conference lasted from 10 a.m. to 5.30 p.m., and at 6 p.m. there was a reception at Lancaster House where the host was the President of the Board of Trade.

The opening address was given by Mr. John K. Vaughan-Morgan, M. P., Minister of State, Board of Trade and the Viscount Caldecote, D.S. C., M. A., Director of English Electric Co. Ltd., spoke before luncheon interval.

Sir Claude Gibb, the Chairman of the Athlone Fellowships Managing Committee, was unable to be present and Sir Henry Gregory, K. C. M. G. , C.B., Vice-Chatman took the chair at the General Assembly at the final stage of the Conference.

Miss D. E. Ackroyd of the Board of Trade introduced the speakers, and Dr. Burness, Adviser to the Board of Trade on the Scheme, and Dr. Monkhouse, Adviser elect, attended throughout the Conference.

After the opening address, the Conference was divided Into four discussion groups to consider four pre-determined points, each group having a Government official as Chairman. Each group was asked to appoint a reporter co prepare and present at the final assembly a report on the specific question assigned to it; and three speakers to give the Group's comments on the other three questions.

Group I Discussion Point: "What difference will experience obtained in this country have upon your choice of work and your advancement prospects in Canada?"

Without exception, Athlone Fellows must return to Canada with a greater technical ability than that with which they left the country. mils means that they WII I be able to command more interesting, challenging and highly-paid jobs than those

which they were offered before leaving Canada. This is usually the most important reason for doing graduate work under any circumstances.

An Athlone Fellow is usually aware of the fields in which he is most interested, before taking up the Fellowship. More it often a clarification of interests while in this country, but very few Fellows have experienced a dramatic change in outlook.

Returning to Canada with a University degree or specialized Industrial training in addition to the prestige attached to the name of the Fellowship, will give the Athlones an advantage in the job market. However, the Fellows would not attempt to prophesy how the two years in England would affect their advancement prospects in the more distant future. Perhaps this was because advancement is dependent on many qualities besides technical knowledge (Intelligence, Initiative, etc.) which are inherited or take many years to develop. It is very difficult to estimate the effect of our experiences In this country, on these qualities.

It was agreed that the Athlones would return to Canada having achieved a greater appreciation of cultural activities and being equipped to lead a more satisfying life.

Group II Discussion Point: "Suggestions for improvements in the Scheme. In what respect has the training here failed to come up to expectations? Has it in any way supplied something .that had not been expected?"

Many Fellows expressed concern at the type of training offered by the large corporations in this country. Canadian graduates cannot get enthusiastic about most apprenticeship schemes when they know that their fellow graduates in Canada are doing more interesting and challenging work and are being paid three times the salary. If a Canadian gives up the material advantages of life in North America he expects "something" in return and that "something" is not usually found on the shop floor of a large factory. Quite often it is found in the research and development departments where a Fellow can obtain experience which is not available in Canada. Athlones have learned a great deal about the "nuts and bolts" aspect of Engineering through their summer jobs in Canada. Their education in this respect is by no means complete but it seems wasteful to spend much time on this sort of training when it is easily obtained in Canada.

The large firms in Britain must be encouraged to treat each overseas student as a special case and there should be direct lines of communication between the student and the Education Advisers In a Company so that his requests do not get lost In organizational red tape. Small industrial units seem to have provided the best experience in the past. They are also more flexible and the student has been given greater freedom and responsibility.

It was suggested that the industrial Fellows should be allowed more holidays as it was felt the academics were very favoured in this respect.

On two points, the terms of the Fellowship need clarification:

Changes in Study Programme: Each Fellow should be given a free hand in choosing his own programme and making changes if necessary, within a framework defined by the Managing Committee. While the scheme has been flexible in the past, decisions on study programme have at times appeared inconsistent. Some Athlones have had great difficulty in making suitable arrangements, while others have been surprised at how easily they have won their way. The reasons for this are not apparent to the Fellows and they would like the Committee to define its policy on these matters.

Information: The prospective Athlone Fellow in Canada finds it very difficult to obtain accurate information about industrial and university training in this country. It would be helpful if a brochure were prepared which dealt with these matters and was available in Canada along with the Memorandum on Conditions of Award. The student must be fully informed about both sides of the Fellowship before he can be expected to make a wise choice of programme.

It would be helpful if more information were available concerning short courses at universities ties in this country.

A suggestion was made that a Trade Index of British engineering firms be given to candidates.

Group III Discussion Point: "Are the objects of the scheme more likely to be realised from: (a) academic training, (b) industrial training or (c) a combination of the two?"

After initial discussion on what actually were the "objects of the scheme" the one unanimous conclusion was that the Fellow should be happy with his choice of work. The best trade ambassadors of the future are those who have been satisfied in having had the training they wanted. This, it was thought, was best brought about by giving the Fellow a completely free choice, assuming he knew all the facts of the three types of programmes, and was aware of different practices in training and education.

Industrial training clearly serves the immediate interests of the Board of Trade in introducing familiarity with British engineering equipment. For Fellows planning alternate careers in production or management, it is most useful. Some Fellows thought that the two years of industrial training is spent best at a number of places, rather than with one firm. Unfortunately, several Fellows complained that the British apprenticeship system removed some "job challenge" for them, but other Fellows seemed completely satisfied. This appeared to be determined by the company, and how well informed the Fellow was beforehand.

In working in industry, a Fellow sees the overall production of a product of one or more firms, and therefore has first hand knowledge of these products, as well as a vast increase in his own knowledge. Thus both the Fellow's and Board of Trade's objectives are satisfied.

Very strong opinions were voiced in favour of the academic plan, though these opinions were not unanimous. It was felt that a Fellow with post graduate training was in no way less familiar with British products, and on his return to Canada would be just as prone to think of British equipment as would a Fellow who spent his time In Industry. The possession of a higher degree does not restrict work to research, and may, In fact, lead to positions of greater responsibility. In working towards higher degrees, a student must order his own equipment, and in doing so, must consider all the firms producing what he wants. When this is supported by works visits, it was felt the familiarity with a broad range of goods was increased.

From the Fellow's point of view also, the academic is satisfying. It was pointed out that in Canada a higher degree is a very desirable asset, perhaps more so than in Britain. Higher degrees tended to "open more doors" and allowed more specialized employment for the prospective employee. Several Fellows thought the academic scheme had more fringe benefits, there fore making it more desirable.

The combination scheme had a great many supporters. Its advantages are a combination of both the above schemes and need not be repeated. Although this scheme is advantageous to both the Fellow and the Board of Trade, regret was expressed over the fact that one year diplomas offered in Britain are not widely recognized in Canada.

In summation, it was generally agreed that the Board of Trade's objectives were achieved by both Industrial and academic training. Therefore, as long as the Fellow was completely satisfied and happy with his work, as most of the Fellows are, the completion of the scheme was fulfilled. As evidenced by the widely differing opinions expressed, the Fellows felt this was achieved by leaving the scheme flexible and giving a free choice based on complete information, and individual consideration on selecting the areas in which he will be trained. If the Board of Trade want to keep the majority of students in industry, and still have the scheme flexible, they must provide more incentive for industrial experience. This could be done by some pay differential, longer vacation time, and encouraging industry to give more Individual treatment.

Group IV Discussion Point: "Views on the advantages to be obtained from visits to works by groups of Fellows".

To quote from Lord Caldecote's speech"...we don't ask you to buy our products because of our close and friendly relations, but because we believe that we can do a better job for you than anyone else."

The general opinion of the Fellows was that works visits give a broader look at the scope of British Industry and help to determine if a "better job for you than anyone else" is done. All the Fellows, regardless of their scheme, benefit from works visits, and they are generally found stimulating and interesting. Works visits are particularly useful for academic Fellows and those spending two years with one firm. Visits ensure that opinions formed in this country are not one-sided, or confined to one facet of British Technology.

Much of the discussion broke down to methods of getting more out of visits. It was suggested that small groups, guided by technically competent men, led to stimulating discussion and generally more interesting visits. Ideally, the visits should concentrate on particular parts of the company's operation. Many firms visited had such arrangements and often were completely willing to do whatever the fellows wished. The Fellows expressed a great deal of appreciation

for many unexpected invitations and the wonderful hospitality shown by some firms.

It was agreed that all possible assistance should be given, and particularly to Fellows who are not in contact with others. That could be done by standard form letters for visit applications, lists of industries and their main fields of work, and notices of visits to Fellows who may be interested.

Generally, works visits were considered to be a very good thing, rounding out the store of Information and supplying particular Information in many cases.

Summary and Comment

Four main points arose from the discussions:

Information

It is very Important that the prospective Fellow In Canada have a more accurate picture of the type and conditions of training available In this country. A pamphlet should be prepared which would point out the differences between training In Canada and Great Britain and help the student to decide upon the course of study best suited to his needs. The secretaries suggest that a committee be appointed to prepare a brochure dealing with these matters. Such a committee should represent the opinions of Industry, University and the Athlone Fellows.

Clarification

The Managing Committee needs to go a little further in defining its policy; particularly with regard to study course available under the scheme and the procedures and criteria used in cases where the Fellow wishes to change his study programme.

Flexibility

Some students will always make an unhappy choice of programe. If they can choose freely, they WII I remain satisfied with their work and will feel that their two years are well spent. The Fellows felt that the scheme is quite flexible now, and it should be left so, particularly with respect to inItial choice of programme, no special emphasis being placed on any one type.

Industrial training

There was a general feeling that the Fellow In Industry should receive more Individual attention and that he should be given a greater opportunity to obtain specialized experience which is difficult to find in Canada.

There was very little comment on points one and four. The Fellows would not attempt to look far into the future. It was agreed that the Fellowship was a very good scheme and anything which gave an opportunity for seeing more of British Industry would help to improve it.

The Conference brought to light many points and questions, the main ones being summarized above. Some of the points brought up were a matter of administrative machinery and could be easily rectified. However, the Fellows enjoyed having the opportunity to express their views and this should result in a feeling of better understanding. Although the Conference was primarily to see how the scheme is going, the Fellows enjoyed hearing opinions from those not in the same training plan. Some of the discussion reverted to criticism and complaints, but there was an underlying feeling that those present were very grateful and proud to be able to call themselves an "Athlone Fellow".

(Note: The Managing Committee of the Athlone Fellowships Scheme have under consideration the various suggestions made in this Report.)

Note from the Managing Committee in the United Kingdom

The Managing Committee for the Athlone Fellowships Scheme have pleasure in issuing this third Newsletter to Fellows past and present and to others interested in the United Kingdom and in Canada.

Readers will have observed from page 2 that 1958 saw a change in Chairman of the Managing Committee, Sir Claude Gibb, K. B. E., F. R. S., the Chairman and Managing Director of Messrs. C. A. Parsons and Company Limited, having succeeded Sir Arthur P. M. Fleming, C.B. E. Sir Arthur Fleming was a member of the exploratory mission to Canada in 1950, whose report resulted in the institution of the Athlone Scheme, and he was also the United Kingdom's Managing Committee's first Chairman. The help he gave was always constructive and generous and the success of the Scheme is largely due to the

thorough job he did both before the start of the Scheme and subsequently from the Chair of the Managing Committee. It was with great regret that the Athlone Authorities learned early in the year that Sir Arthur had felt it necessary to resign the Chairmanship of the Committee.

Shortly after this News Letter had gone to press, the Committee learned with deep regret of the death of Sir Claude Gibb. Sir Claude collapsed and died on January 15th whilst travel ling from the United States to Canada.

Dr. H. Burness was, at the end of the year, succeeded as Adviser to the Scheme by Dr. A. C. Monkhouse.

1958 also saw the first conference of Athlone Fellows which was held under the auspices of the Board of Trade on the 25th June, 1958 to obtain Information and opinions about the Scheme for the Fellows themselves. On the preceding day groups of the Fellows visited the Nuclear power Station, Bradwell-on-Sea, Essex, the G.P.O. Research Establishment, Dollis Hill and the Royal Aircraft Establishment, Farnborough. The conference is fully reported elsewhere in this letter.

Since the Issue of the second Newsletter a further group of Athlone Fellows has arrived In Great Britain, bringing the total number of Fellows up to 295. In the light of the discussion at the June conference, the following table, showing how the programs of the Fellows were divided as between Industry and university, may be of interest:

Athlone Fellows' Distribution by Program				
Year	2 years industry	2 years university	Mixed Course	Total
1951	8	21	9	38
1952	4	18	13	35
1953	16	11	10	37

1954	10	10	16	36
1955	8	12	17	37
1956	1	21	16	36
1957	2	25	9	38
1958	4	11	23	38
Total	53	129	113	295

The number of Fellows following programs in the various branches of Engineering in the United Kingdom are as follows:

Programs	Number of Fellows	Programs	Number of
			Fellows
Mechanical *	68	Metallurgy	18
Aeronautical	29	Metalliferous Mining	2
Light Electrical	55	Petroleum	
		Technology	2
Heavy Electrical	11	Physical Chemistry	4
Civil	56	Nuclear Physics	3
Chemical	21	Nuclear Chemistry	1
Physics	2	Nuclear Power	20
Forestry	1	Environmental	1
		Geophysics	1

^{*-}Including Product, Engineering and Administration

The number of Fellows who have returned to Canada is now 201. Of these 38 had stayed on in Great Britain for various periods after the expiration of their Athlone Fellowships, 30 to complete the work for higher degrees and 8 to gain further Industrial experience. Of the 94 men at present in the United Kingdom, 20 have finished the two years of their Fellowships and are staying on for a further period to complete their work in university or in Industry.

It may be of Interest to readers to know to what type of employment in Canada Fellows are returning. The following analysis relating to the first five groups of Fellows has been produced from information supplied by Individual Fellows and the Authorities in Canada. It is, unfortunately, not as complete as the Committee would wish but it does give some indication of the trend.

	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>Total</u>
Industrial	21	23	16	15	10	85
Canadian Government	8	4	3	1		16
Academic	4	5	5	4	4	22
Not In Canada	3	1	2	1	1.	8
Not known	2	2	11	15	22	52
Totals	38	35	37	36	37	183

("Industrial" Includes Atomic Energy of Canada Limited, "Canadian Government" Includes Mines Department, National Research Council and Defence Research Board employment, and "Academic" means engaged in a University.)

It is a source of some disappointment to the Committee that, despite their appeal in the Newsletter issued a year ago and their last minute request of the Fellows in the United Kingdom for material for inclusion in this and subsequent Issues of the letter, only two items were submitted. They therefore repeat that they will welcome notes from past and present Fellows about their experiences in the United Kingdom, and are particularly anxious to hear from past Fellows of their careers in Canada, their progress in their employment, and any incidents or items which would interest other Fellows or any of the other recipients of! the Letter both in the United Kingdom and in Canada. They will also welcome contributions for the Letter from universities and employing organizations both in the United Kingdom and Canada, on any matter which would be of interest to persons connected with the Scheme and particularly any suggestions for its improvement.

The Managing Committee are also anxious to receive from all past Fellows information to keep their records up-to-date. They will, therefore, be pleased if these Fellows will complete the tear-off slip on page 17 and send it to The Secretary, Athlone Fellowships Managing Committee, Ministry of Education, Curzon Street, London, W. 1.

Athlone Fellowship Newsletter #4, January 1960

Foreword by Sir Julian Pode, J. P.

(Chairman of the Managing Committee in the United Kingdom)

I was most pleased earlier this year to accept the invitation to become Chairman of the Managing Committee of the Athlone Fellowship Scheme, not because of any particular connection with Canada, but because of a keen interest in education, and particularly technological education. I have headed a team which, since 1947, has built what is at present the largest and most modern rolling and finishing plant for steel sheets and tinplate in Western Europe; and this, if nothing else, has impressed me with the absolute necessity of an ever increasing supply of skilled engineers. Any country ignoring this fact must fall behind industrially and face a lowering standard of living for its people.

The inauguration of the Athlone Fellowship Scheme in 1951 was a far sighted measure enabling the age old skills of the people of these islands to be passed on to the virile Dominion of Canada, which, with its abundant natural wealth and the tremendous energy of its people will soon be one of the leading industrial nations of the world.

I have been privileged to meet some of the Athlone Fellows who are already on their two year course and also those who only arrived this September. They come as ambassadors of Canada but I have little doubt that when they return they will, in addition, be ambassadors of the old country. Schemes such as the Athlone Fellowships

cannot fail to have a two-way benefit.

Signed:

Note from the Managing Committee in the United Kingdom

The Managing Committee for the Athlone Fellowships Scheme have pleasure in issuing the 4^{th} News Letter to Fellows past and present and to others interested in the Scheme in the United Kingdom and in Canada.

Reports by Fellows and by their industrial supervisors and university tutors continue to indicate that the Scheme is working satisfactorily and is achieving its aims. The universities and the increasing number of United Kingdom establishments which have accepted Fellows for training maintain their interest in the Scheme and are giving it every assistance. To these Friends the Managing Committee send their sincere thanks and appreciation.

The Managing Committee Committee also wish to express gratitude and appreciation to all friends in Canadian universities, engineering industries, and in the offices of the High Commissioner for the United Kingdom, to whose continued enthusiasm and cooperation the Schemes owe much.

The year under review has seen several changes. Sir Claude Gibb, whose death was reported in the last News Letter, was succeeded as Chairman of the Managing Committee by Sir Julian Pode, Managing Director of the Steel Company of Wales Limited. Then, in March, the Committee learned with deep regret of the sudden death of Sir Henry Gregory who had been Vice Chairman for four years. Fellows who attended the 1958 Conference will remember Sir Henry who took the Chair at the concluding Assembly and so ably summed up the findings of the discussion groups. He has been succeeded by Sir Douglas Logan, Principal of the University of London.

In News Letter #3 it was reported that Dr. H. H. Burness has been succeeded as Advisor to the Scheme by Dr. A. A. Monkhouse. Dr. Burness had been connected with the Scheme from the outset and much of its success is due to his enthusiasm and his readiness to do all possible to meet the needs of individual Fellows. That Dr. Burness was very popular with the Fellows is evidenced by the number of appreciative remarks in Fellows' reports and the expressions of regret on his retirement from the Scheme.

On the 1st May, 1959, the day-to-day work of the Scheme was transferred from the Ministry of Education to the Board of Trade, solely for reasons of administrative convenience since the Board has always been responsible for the Athlone Fellowship financial arrangements. There is no intention to change the concepts of the Scheme. As a result of this transfer, Mr. Burgess was no longer eligible to remain Secretary to the Managing Committee, a position he had filled since the inception of the Scheme in 1951. His faithful and valuable work in connection with the running of the Scheme is well known to past Athlone Fellows, many of whom have expressed appreciation of his assistance in their periodic reports. The Managing Committee are confident that all concerned will join with them in wishing Mr. Burgess every

success in his new appointment in the Ministry of Education. He has been succeeded as Secretary to the Managing Committee by Mr. J. F. Palmby of the Board of Trade.

In September, 1959, the 9th group of Athlone Fellows arrived in Great Britain and a further 1959 Fellow is due to arrive in January, 1960: this will bring the total number of Fellowship up to 336.

The following table showing the relative distribution of training programs since 1951 may be of interest:

	Two Years Industry Or Industrial Consultant	Two Years University College or Research Establishment	Mixed Course	Total
1951	8	21	9	38
1952	4	18	13	35
1953	16	11	10	37
1954	10	10	16	36
1955	8	12	17	37
1956	1	21	16	38
1957	2	25	9	36
1958	-	20	18	38
1959	4	14	23	41

To date, Fellows have elected for training in various branches of engineering in the United Kingdom as follows:

Mechanical		Metallurgy	23
(Including Production Engineering		Metaliferrous Mining	2
Or Industrial Consultants)	82	Petroleum Technology	2
Aeronautical	31	Physical Chemistry	4
Light Electrical	62	Nuclear Physics	3
Heavy Electrical	11	Nuclear Chemistry	1
Civil	62	Nuclear Power	25
Chemical	23	Environmental	1
Physics	2	Geophysics	1
Forestry	1		

Of the 1957 Fellows who have completed the two years of their Fellowships and were due to return to Canada, twelve have remained in the United Kingdom to complete work for a higher degree and one has remained with a firm of consultants to gain further experience.

Following the success of the 1958 Conference which was reported in the last issue, a further conference will be held in 1960 for 1958 and 1959 Fellows. It will take place in London on Tuesday, March 29th and Wednesday, March 30th.

It is a disappointment to the Committee that, despite appeals in recent Newsletters and their special request in September to Fellows in the United Kingdom for material for inclusion in this and subsequent issues of the letter, only 4 items were submitted. They therefore repeat that they will welcome notes from past and present Fellows about their experiences in the United Kingdom, and they are particularly anxious to hear from past Fellows of their careers in Canada, their progress in their employment, and any incidents or items which would interest other Fellows or any of other recipients of the letter both in the United Kingdom or in Canada. They will also welcome contributions for the letter from universities and employing organizations, both in the United Kingdom and in Canada, on any matter that would be of interest to persons connected with the Scheme and particularly any suggestions for its improvement.

The Managing Committee are also anxious to receive from all past Fellows, infor to keep their records up to date. They will, therefore, be pleased if the Fellows will complete the tear off slip on page 15 and send it to The Secretary, Athlone Fellowships Managing Committee, Board of Trade, Horse Guards Avenue, Whitehall Avenue, London, SW1.

Obituary—Richard Francis Chritchley

It was with deep regret that the Committee reports the death of Richard Francis Chritchley who was killed in a motorcycle accident at Derby on 21st June, 1959.

Richard Chritchley was educated at the Prince Albert High School and the University of Saskatchewan. He graduated in mechanical engineering with great distinction in May 1955.

He obtained his Athlone Fellowship in 1958, and was spending his first year with Vickers-Armstrongs, Ltd. At Newcastle-upon-Tyne, from whom he was detached on a short course with Rolls-Royce, Ltd., Derby, when the accident occurred. His second year was to have been spent at Sheffield University.

He was making excellent progress in the United Kingdom and there is no doubt that, but for this tragic event, his early promise would have been fulfilled.

His father flew from Canada for the internment, which took place on the 25th June in the family grave at Manor Park cemetery, Ilford, Essex. The service was conducted by the Rev. Neil Marsh of Louth, Essex, who was a personal friend of the deceased, and a fellow student at Saskatchewan University.

In addition to relatives, among those present at the funeral were a representative from Vickers-Armstrongs, Ltd., Newcastle; Mr. Knight, of the London Office of the Saskatchewan Agent-General; Fellow Athlones C. E. Till and I. A. Soutar, and Dr. A. C. Monkhouse, who represented the Managing Committee.

Note by Dr. A. C. Monkhouse, C. B. E. (Advisor to the Athlone Fellowship Scheme)

To fly to Vancouver via the Polar route, to cross Canada from the Pacific to the Atlantic Ocean is a journey many Canadians themselves have not undertaken. When this is combined with visits to universities and to industry, discussions with university staff, industrialists and former Athlone Fellows it will be realized that opportunities are available for obtaining a vivid impression of Canada and Canadians.

The first impression is the size of the country. To one who has lived on a small island, where the longest journey taken is say from London to Edinburgh, 400 miles, distances seem fantastic. From Vancouver to Halifax is nearly 4,000 miles. The country is served not only by excellent railway systems, but by efficient internal airways, which in spite of hard winter conditions, maintain a remarkably good service. Then there is the scenery. What can compare with the majestic crossing of the Rockies, the sight of the prairies under snow, the picturesque rail track alongside the Lakes, Mount Royal, Quebec standing as a sentinel in the St. Lawrence, and the woodland beauty of the Maritime provinces.

I had looked forward with a certain amount of trepidation to experiencing the rigors of a Canadian winter for the first time but my fears were ill-founded. Although cold, with temperatures on occasion down to '30 below', the sky was clear and sunny, the air bracing and invigorating. In this respect it was a pleasant change from the cloud and fog of London's winter. Canadians seemed to have solved the problem of alleviating the rigors of winter; homes, buildings, and cars were all well heated, streets and main roads were kept clear of snow, and sports and entertainment were features of the period. I was fortunate when in Quebec in seeing the Ice Carnival in progress and witnessing the celebrated dory race across the St. Lawrence, and also of seeing a little of the Drama Festival at Edmonton.

Then there are the people. I doubt whether anywhere can be found such warmhearted people, fond of their country, keen to develop their many natural resources and eager to build a united country, capable of playing its part in world affairs. The Seaway Scheme is an outstanding example of engineering skill to bring ocean going vessels over 2,400 miles into the heart of the North American continent. The growing development of mineral and oil resources together with the large timber and wood pulp industries should place Canada in a very strong position. The expansion of the chemical industry at Shawinigan and at Sarnia was most impressive. Opportunity was also taken to see the Zinc and Lead refinery at Trail, and the Nickel Industry at Sudbury. In conjunction with the mining industry there is the excellent work done by the Department of Mines and Surveys at Ottawa. The establishments visited of the National Research Council at Ottawa, the British Columbia Research Council at Vancouver, the Alberta Research Council at Edmonton, the Ontario Research Foundation at Toronto gave an impression that Canada was keen to develop its natural resources to the full.

One marked impression was that of the demand for higher education as indicated by the growth of the universities. It was gratifying to see the new buildings of the engineering schools and to hear of the estimated growth in the number of engineering graduates from 2,000 in 1958 to 3, 500 in 1965. The Athlone Fellowship scheme has been in operation for eight years, the first group went over to the United Kingdom in 1951. It is getting better known and returned Athlone Fellows have done much in publicizing the benefits to be derived from the scheme. The number of Fellowships available was increased from 38 to 41, the extra three being awarded to the engineering schools of the Universities of Western Ontario, Sherbrooke and Ottawa. Opportunity was taken at many of the universities to speak to the engineering students on the Athlone Fellowship scheme and its potentialities to encourage them to give it consideration in their final year. In 1959 of the 41 Fellowships, 10 are awarded to engineers already in industry.

In 1959 the distribution of the 41 Fellows among the different branches of engineering to be studied in the United Kingdom was:-

Mechanical	14
Electrical	7
Civil	6
Metallurgical	5
Nuclear Power	5
Aeronautical	2
Chemical	2

14 Fellows have provisionally elected for two years training at a university or college, 4 for two years in industry, and 23 for one year in each. The growing number of graduate courses at universities in the United Kingdom which permit of a masters degree or a diploma being obtained in one year has proved very attractive to the Athlone Fellows. The newer aspects of engineering, such as nuclear power, electronics and telecommunications have had a special appeal. Industry in the United Kingdom is paying more attention to the training of post-graduate students. It is pleasing to record that Athlone Fellows are gaining a reputation in the United Kingdom for keenness and enthusiasm which does much to promote the success of the scheme.

As Adviser to the scheme I cannot express too strongly my appreciation of the enthusiastic co-operation of the universities of Canada and of the engineering industries, and also the assistance and guidance of the officers of the U.K. High Commissioner for Canada.

A. C. M. (67109)

Note by G. S. Bosworth—TRAINING IN INDUSTRY (industrial representative of the Managing Committee)

The arrangements for industrial training for young engineers in the United Kingdom stems in the main from the fact that engineering has always been regarded in the United Kingdom as both an art and a science and the tradition of learning practical skills goes back at least to the Middle Ages and even earlier. The job of an engineer is to devise and make equipment to harness natural phenomena for the benefit of mankind. Consequently, it is regarded as axiomatic for a young engineer to have first-hand experience in the use and fashioning of the materials he will use for this purpose.

Although in his professional life he will not be engaged in this practical work personally, nevertheless his ideas and designs will be converted in to reality through the activities of craftsmen and through a chain of professional men and technicians whose skills and responsibilities, attitudes and customs he should understand. acquire by working with them and being admitted to their confidence. This he can only really acquire by working with them and being admitted to their confidences.

The complex nature of modern industry demands an increasing degree of specialist knowledge in addition to the broad background and it is there fore important, if industrial training is really to prepare a man properly for his first responsible appointment, that a definite goal should be set as soon as possible. In the main this means finding the answer to two questions; firstly, what sort of engineering does the

man wish to work in? eg., steam turbines, automobiles, power generation; and secondly, to which function it is he thinks his personal aptitudes and interests are most suited, e. g. commercial, design and engineering, research and development, manufacturing, operation and maintenance.

It will be readily seen that the answers to these two questions can lead to many different forms of industrial training and might indicate the need for postgraduate study to fill in gaps in his technical knowledge. Most graduate apprenticeship schemes in the United Kingdom take account of these factors and contain an element of training in the use of engineering tools. They give the opportunity of working side by side with skilled craftsmen and technicians in the early stages and later on give the opportunity of working alongside professional men to learn how they discharge their responsibilities. The term apprentice is used in preference to any other, because it is widely accepted in British industry, and at all levels the responsibility of passing on techniques and knowhow to apprentices whatever their grade is widely accepted by craftsmen, technicians and professional engineers. On the other hand, men bearing titles such as Management Trainee are often regarded with some suspicion and there may be reluctance to pass on valuable in formation which cannot be gained except by personal contact in an atmosphere of mutual confidence. Most graduate apprenticeship schemes in the The term On the other hand, men bearing titles such as Management Trainee

This sort of know-how is regarded in the United Kingdom as being extremely valuable and undoubtedly contributes much to the establishment of harmonious relationships and efficiency in translating ideas into hardware.

G. S. B.

Tributes to Dr. H. H. Burness, C. B. E., by past Fellows

(1)

Like most Athlone Fellows, when think back to England and the Fellowship, the first person who comes to mind is "the good Doctor". I probably knew Dr. Burness as well, or maybe a little better, than most Athlone Fellows, because I was in the fortunate position of never being placed more than a half an hour train ride from the Ministry of Education. This enabled me to park on his doorstep with all my problems and through the many discussions I had with Dr. Burness, I got to know and appreciate his contribution to the Fellowship.

Dr. Burness was a very dedicated man. His interest in the Fellows had a much greater depth than his job required. He was intensely interested in the progress of the students and derived a great deal of inward satisfaction from the successful students, and conversely, felt disappointed if the student did not take full advantage of the available opportunities.

One characteristic which appealed to me more than any other was the length he would go for you additional experience or educational advancement. One such incident occurred during my first year in England. I became quite interested in the Managerial Course at Cambridge University. I wrote to the University explaining my Interest in this course, and found that the course was filled. I wrote to Dr. Burness explaining the situation to him. A number of letters, personal visits and more letters followed, and Dr. Burness, as he so often did, performed the impossible and obtained a place for me in this course.

Dr. Burness was a very capable administrator, a man who had a great deal of personality and charm, and most important of all, one who was interested in the progress of the Fellows.

D. C. Lowe, 1955 Fellow

(2)

What impressed me most about Dr. Burness was his complete willingness and his efforts to please the Fellows and to satisfy their wishes. I am especially thinking of his efforts place us with the company or school of our choice. At the end of my first year I wrote and asked if he could place me with two companies with whom I felt I would like to spend some time. It turned out that neither of them was willing to take anyone, and when I was discussing this with him later I received the impression that he was more disappointed than I over the failure to arrange any thing. He did, however, make sure that I had at least a visit to the companies in question before I left England.

Dr. Burness' wide knowledge of industry impressed me also. My particular interest was paper making and in the first interview when I applied for the Fellowship, I was surprised to hear him launch into a discussion of some obscure phase of the subject about which I knew nothing.

Perhaps many of us, as I did, got to know the Doctor best after those late afternoon visits to his office in the Ministry when we would retire to his favourite pub in Curzon Street to have a pint while listening to a few of his amusing anecdotes about his trips to Canada.

On the whole, I found Dr. Burness to be a genuinely friendly man, not in the least a stuffed shirt, and a man with whom one could feel completely at ease.

R. R. Affleck 1955 Fellow

Athlone Fellowship Newsletter #5, January 1961	

Athlone Fellowship Newsletter #6, January 1962

Foreword by Sir Julian Pode, J. P.

(Chairman of the Managing Committee in the United Kingdom).

For three years I have had the privilege of writing the foreword to this, the Athlone News Letter. In my letters of welcome to the 1961 Fellows I said that this year was somewhat of a milestone in the history of the Scheme inasmuch as we were now embarking on the second decade. In fact, 416 Fellowships have been awarded to date, which I think is unquestionably an indication of the success of the Scheme.

I have had the opportunity this particular year of seeing the 1959 Fellows through to the completion of their course. I have no doubt that these men will return to Canada to take up their various careers equipped with a knowledge of our people and habits, which is bound to foster a closer understanding between our two countries.

The need for men with high scientific, technical and managerial ability becomes increasingly urgent as the years go by and I am sure that a training scheme such as the Athlone Fellowships must of necessity continue to go from strength to strength. From what I have already seen of the 1961 entrants, they will not fail in this respect.

I would like to add a personal note on Dr. Monkhouse. He was appointed Advisor to the Scheme in 1958 and retired in September, 1961. During this period he did much traveling and I think will be well remembered in Canada. Mr. Manning has been appointed to succeed Dr. Monkhouse and I wish him every success.

Note from the Managing Committee in the United Kingdom

The Managing Committee of the Athlone Fellowships Scheme have pleasure in issuing the 6th News Letter to Fellows past and present, and to others interested in the Scheme in the United Kingdom and in Canada.

Reports by Fellows and by their industrial supervisors and university tutors continue to indicate that the Scheme is working satisfactorily and that current Fellows are more than maintaining the high standard set by their predecessors. The universities and the increasing number of United Kingdom establishments which have accepted Fellows for training maintain their interest in the Scheme, and are giving it every assistance. To these friends the Managing Committee send their sincere thanks and appreciation.

The Managing Committee also wish to express gratitude to all friends in Canadian universities, engineering industries, and in the offices of the British High Commissioner and the Senior Trade Commissioner to whose continued enthusiasm and co-operation the Scheme is indebted.

Dr. A. C. Monkhouse, who had completed three years as Adviser to the Scheme, retired in September, 1961, and has been succeeded by Mr. F. E. A. Manning. Dr. Monkhouse's efforts on behalf of this Scheme and his readiness to do everything possible to meet the individual needs of Fellows have been fully appreciated by officials and Fellows alike and universal good wishes for his future happiness and well-being have been coupled with expressions of regret at his retirement from the Scheme.

Note by Dr. A. C. Monkhouse, C.B.E.

It is with regret that I write my final note for the News Letter. I have taken part in three selection tours which have enabled me to gain a wide knowledge of Canada and its problems. Coming from an older country it is refreshing to feel the enthusiasm that exists in Canada for its future prospects. One outstanding example is the growth in educational opportunities. It is encouraging to see the extensions of the older universities, and the development of new ones together with the special facilities given to the various branches of Science and engineering. In Great Britain there is a large number of technical colleges, and these now include a number of colleges of advanced technology. There is in Canada scope for a similar development, running parallel with the universities. Latterly I noticed in some of the provinces of Canada schemes to develop more technical colleges which I am convinced will be a useful adjunct to the educational scheme.

The Athlone Fellowships Scheme continues to attract Canadian engineering graduates and the number of applicants in 1961 constituted a record. The opportunity to spend two years in the United Kingdom on post-graduate experience in industry or at the university is a valuable one, as it gives the engineer a wider vision of his profession. It also gives him the opportunity to live in another country with a somewhat different outlook and way of life. On the other hand the Canadian engineer can present a picture of modern Canada with its hopes and aspirations. There are still people who envisage Canada as a land of ice and snow or waving cornfields with Red Indians in the near background. The more the members of the Commonwealth appreciate each other's way of life and each other's problems the stronger will be the ties of the Commonwealth. This result can best be achieved by such methods as the Athlone Fellowships and Commonwealth Scholarships.

In the 1961 Selection Tour 16 universities were visited, an addition of two compared with the preceding year, viz. McMaster University at Hamilton, and Carleton University, Ottawa. From the point of view of allocation they were included in the recent group of three - Western Ontario, Sherbrooke and Ottawa Universities - so that 3 Fellowships were available among the 5. The number of awards available has been maintained at 41, 31 to those in Universities - 10 to those in industry. In view of the increasing number of universities coming forward with schools of engineering at graduate level it has been decided to hold the coming tour in November and December and to dispense with the special allocation to individual universities. Consideration will however be given to such factors as the size of the university engineering school, the province etc. but the system will avoid any promising young engineer being missed. The final selection of Group "A" candidates will thus be made at the end of the tour in a similar manner to that of Group "B" candidates.

One of the pleasing features of the tours has been the support and encouragement given by old Athlone Fellows who have been most helpful in giving advice and information to prospective candidates. In the Province of Quebec a live Athlone Association has been established and this may develop in other provinces. The quality of the "A" Candidates was high and many excellent candidates were interviewed. With respect to "B" candidates 1t would be an advantage if more were sponsored by their firms, although many do cooperate.

Of the Fellows chosen, electrical and civil engineers comprise the larger proportion of the 40 Fellowships awarded, 20 Fellows opted to spend 2 years at the university, 17 to spend one year each in industry and university. and 3 to spend two years in industry.

The total number of engineering entrants at Canadian Universities is increasing but certain of the larger universities record a slight decrease. This is considered to be a temporary phase, due to the increasing number of new universities with schools of engineering.

One cannot express too highly the support given to Athlone Fellowships by the Canadian Universities, by industry and by the Engineering Institute of Canada. This Institute has always been a staunch supporter of the scheme from its inception and its continued support is greatly appreciated.

It has been difficult in the past to keep contact with returned Athlone Fellows but with the help of the U.K. Trade Commissioners, the universities, the newly-formed Quebec Athlone Association and others a more comprehensive list of addresses and posts held by returned Fellows has been compiled for inclusion in the yearly News

Letter. It is hoped that all Fellows will help to make this Journal a live record not only of their experience in Great Britain but also of their subsequent activities.

The high reputation of the scheme both in Canada and Great Britain has justified the vision of the Founders of the scheme and it has provided a wide type of individual training within its framework, and a better understanding between the two countries.

I conclude with an expression of indebtedness to all those in official capacity, university, industry, Press and Radio who have helped me. I have a great admiration for Canada and its people and am convinced it has a growing part to play in the modem world.

Note by F. E. A. Manning, C.B.E.

Athlone Fellowships Adviser

I am glad to take this opportunity of saying how pleased I am to be appointed Adviser on the Athlone Fellowships although, like so very many others, I regret that the post has been vacated. It is an honour as well as a pleasure to be associated with this flourishing, well-run and worth-while scheme. Having taken over the helm from such a talented and universally popular Adviser as Dr. Monkhouse, I shall start off along the course he has so well charted and I do not expect that much, if any, deviation will be required.

I have not been in post very long, but I have already spoken to most of the Fellows of 1961 and to several of those who joined us In 1960. I am impressed by the ability and keenness of all I have met and I shall do my best to choose for future years their equals in all respects - I can hardly do better.

Tributes to Dr. A. C. Monkhouse, C.B.E.,

Former Advisor/ From Athlone Fellows in London

'Let us, then, be up and doing, with a heart for any fate; Still achieving, still pursuing, Learn to labour and to wait.

Henry Wadsworth Longfellow.

This autumn the Athlone Fellowships scheme saw another phase come to an end. Dr. Monkhouse, the Fellowships Adviser, retired from his post. The transition from one adviser to another was up to the usual high standard of the Athlone Fellowships Committee; It was unnoticeable, without effects on any individual plans. Without anything more apparent than a letter from Dr. Monkhouse stating his retirement. However, as we are the Athlones who have bridged this transitional period, it has a significance. Most of us could measure the time we have spent talking to Dr. Monkhouse in actual minutes, but even so, all of us know, that in this time an endless impression has been left with us.

Our first introductions to Dr. Monkhouse were at interviews at various universities in Canada. The atmosphere at these Interviews was all too typical. We met a group of men, some known to the Interviewees, but many were complete strangers introduced to us in terms of their formal capacity. Their questioning, usually first, was also typical. The interviewee who realized that two years of his future plans hinged on this Interview found little encouragement to relax in such an atmosphere. Fortunately, this atmosphere was altered when a distinguished-looking gentleman, previously introduced to us as Dr. Monkhouse, took over the interviewing. Within moments the Interview was transformed from a court scene to an informal conversation. Frowns disappeared and smiles were abundant.

After a few minutes of conversation with Dr. Monkhouse, it was obvious to all of us that here was a man with an overwhelming personality, not only capable of setting the pace at an interview, but a person with exceptional sincerity and genuine interest in the student. We could not help walking out of the Interview knowing that if we were successful candidates, our plans would be fulfilled, and that the efforts of Dr. Monkhouse on our behalves would not end at that interview.

Dr. Monkhouse's outstanding personality was undoubtedly our greatest source of confidence that the two-year period we would be spending In Britain would be extremely beneficial. We knew from our first meeting with Dr. Monkhouse that no arrangement would be too complex or unusual and that he would, to the last detail, make the necessary arrangements. Those of us who desired guidance in our plans certainly found this. Dr. Monkhouse was never too busy to discuss or suggest, and implement our plans and ideas.

Our next meetings with Dr. Monkhouse in London were more varied. Some were to discuss plans, others to make final arrangements and, for some, these meetings were their second introduction. In all cases, his quality of interest for the student, so present at the initial interview. It las still obvious.

Socially, many of us met Dr. Monkhouse again, some at functions organized for Athlones, some by chance meetings at dances, receptions, or even holidays. In such cases yet another aspect of Dr. Monkhouse's personality made our respect for him, already great, increase. His friendliness, informal yet sincere, undemanding yet constant, was ever present at such functions.

More Tributes to Dr. A. C. Monkhouse, C.B.E., Former Advisor, from Athlone Fellows in Birmingham

As most Athlone Fellows will recall, one's first vision of Dr. Monkhouse was that of a gentleman on the other side of a huge cold table, flanked by approximately five men on either side and asking searching questions at the selection interview in Canada.

Once having cracked this formidable barrier and found oneself in London for the initiation week, one realized quickly how smoothly Dr. Monkhouse maintained the proceedings while at the same time keeping his interest and willingness to help and advise each Fellow on his place of study or training in industry. His warm, friendly chats made us all feel comfortable and at home immediately.

Dr. Monkhouse was a gifted public speaker as demonstrated, firstly, at McGill University when he delivered a very informative talk on "Atmospheric Pollution in Britain". More recently he entertained the Chad Hill residents in Birmingham during our Annual Dinner when he related some delightful anecdotes of the ways of life of Canadians and Athlone Fellows in particular.

I am sure we all will remember Dr. Monkhouse as a dedicated Adviser; congenial, warm, and at all times prepared to help us with our problems.

Athlone Fellows everywhere join in wishing Dr. Monkhouse many years of happy retirement.

Athlone Fellowship Newsletter #7, January 1963

Forward by Sir Julian Pode, J.P.

(Chairman of the Managing Committee in the United Kingdom)

It is a great privilege to me to be asked to contribute for the fourth successive year a foreword to the Athlone News Letter. As Chairman of the Managing Committee for these past years, I have watched with pride and admiration the progress of the Athlone Fellows and I believe that with each successive year the value of the scheme becomes of even greater significance.

At a time when there are factions in many parts of the world which are wont to criticize the very basis of our Commonwealth structure, I believe that the Athlone Fellows play an immensely important role in strengthening the ties between our two countries by being ambassadors of Canada when in the United Kingdom and invariably returning to Canada as ambassadors of Britain. The very quality of the Fellows whom I have met, and I believe I have now met all those here, convinces me that I am right in my Judgement.

In March of this year, I attended the Conference of the 1961 and 1962 Fellows. This Conference was opened by the President of the Board of Trade and I should like to say how honoured we were that he was able to find the time to attend and to act as host at the cocktail party which terminated the proceedings.

This year has seen the beginning of a new selection system for Group A candidates for whom previously, selection was based on a university quota system. The new system, based on a national order of merit, ensures that candidates are selected on their own merit regardless of geographical location. I am sure this is a great improvement as it means a fairer selection which can only be to the benefit of the as a whole, and to the individual personally.

8th November 1962

Managing Committee Report

The Managing Committee of the Athlone Fellowships Scheme have pleasure in issuing this News Letter to Fellows past and present, and to all those interested in the Scheme in the United Kingdom and in Canada.

Reports by Fellows and by their industrial supervisors and university tutors continue to indicate that the Scheme is working satisfactorily and that current Fellows are well maintaining the high standard set by their predecessors. The universities and the increasing number of United Kingdom establishments which have accepted Fellows

for training maintain their interest in the Scheme and are giving it every assistance. To these the Managing Committee send their sincere thanks and appreciation.

The Managing Committee also wish to express gratitude to all friends in Canadian universities, engineering industries, and in the offices of the British High Commissioner and the Senior British Trade Commissioner to whose continued enthusiasm and co-operation the Scheme is indebted.

The 12th group of Fellows arrived on the 13th September 1962, bringing the total number of awards to date to 456.

Athlone Fellowships Conference, 1962

The third biennial conference was held in London on the 22nd March 1962 for the 1960 and 1961 Fellows. It was opened by the Rt. Hon. Frederick Erroll, M.P., President of the Board of Trade; Sir Douglas Logan, vice-chairman of the Managing Committee, presiding.

In welcoming the Fellows, the President said he had no qualms in mentioning that the mere fact the Board of Trade were responsible for the Athlone Scheme suggested that the Fellowships were not entirely the outcome of philanthropy. It was hoped that Fellows would reach top places in Canadian engineering and if during their careers they occasionally remembered something of what they had seen of United Kingdom scientific and technical achievements, it would be considered that the Athlone Scheme was well worthwhile. The aim was to assist Fellows to prepare for their future careers and to see something of Britain and of her engineering industries in the process. The object of the conference was to hear how the Fellowships worked out individually as a guide to the future running of the Scheme.

In his concluding remarks, the President welcomed the formation of Athlone Associations in Canada and hoped that future gatherings of top engineers in Canada would show a marked percentage of Athlone Fellows.

Fellows then dispersed into four separate groups under the chairmanship of officials from the Board of Trade, Ministry of Education, and the Commonwealth Relations Office to discuss the Athlone Fellowships in relation to the needs of Canadian industry, with particular reference to industrial, university and other experience in the United Kingdom, and the general conditions of the Awards.

The consolidated views of all four groups were presented at a final plenary session under the chairmanship of Sir Julian Pode, J.P., chairman of the Managing Committee; the group spokesmen being William R. Tucker (McGill), Roger N. Stone (British Columbia), Donald R. Woods (Queen's) and Seaforth M. Lyle (McGill). Many useful suggestions emerged, and it was considered by the Fellows, Government

officials and members of the Managing Committee who had been in attendance that the conference had again been extremely worthwhile.

The proceedings of the day concluded with a cocktail party at which the Rt. Hon. Frederick Erroll, M.P., President of the Board of Trade, was the host.

Athlone Fellowship Newsletter #8, January 1964

Forward by Sir Julian Pode, J.P.

(Chairman of the Managing Committee in the United Kingdom)

For the fifth successive year, I deem it a privilege and a pleasure to contribute this foreword to the Athlone News Letter.

The past year has seen an easing of international tensions. As fear recedes, mankind must look anew at the natural resources at his disposal in the light of scientific discoveries to ensure that they are utilized towards the elimination of want, hunger, and other sources of strife between the nations of the world. In all this, engineering in its many forms can, if rightly used, play a major role in the furtherance of world peace. I like to think that, in providing wider experience for engineers, the Athlone Fellowship scheme is also making some contribution towards this objective.

Since I have been Chairman of the Managing Committee, I have seen three separate groups (1959, 1960 and 1961) through to the end of their Fellowships. Not only have I watched their progress in industry and at universities with pride and admiration, but from my personal contacts with them I am convinced that they have returned to Canada with a feeling that their lives have been considerably enriched by their experiences here and with greater understanding of, and closer ties with, Britain.

The abolition of the old quota system and the awarding of Fellowships on a national order of merit to candidates from eighteen different Canadian universities has made competition substantially keener and I know that successful candidates enjoy an even greater sense of justifiable pride.

I look forward to renewing contact with the 1962 and 1963 Fellows at the next biennial conference which is to be held in London on the 24th March, 1964.

Newsletter No. 8 Managing Committee Report

Reports by Fellows and by industrial supervisors and university tutors continue to show that current Fellows are well maintaining the high standard set by their predecessors. Then universities and the increasing number of United Kingdom establishments which have accepted Fellows for training maintain their interest in the Scheme and are giving it every assistance. To these the Managing Committee send their sincere thanks and appreciation.

The Managing Committee also wish to express gratitude to all friends in Canadian universities, engineering industries, and in the offices of the British High

Commissioner and the Senior British Trade Commissioner whose continued enthusiasm and co-operation the scheme is greatly indebted.

The 13th group of Fellows:

Of the 1961 Fellows who have completed their Fellowships and were due to return to Canada in 1963, 17 have remained in the United Kingdom under other arrangements to complete work for a higher degree. During recent years, an increasing number of Athlone Fellows have remained in Britain after the termination of their Fellowships in order to take higher degrees. The National Research Council of Canada have given generous financial support in the past to enable this to be done; so much so in fact, that such support has come to be regarded as more or less automatic by Athlone Fellows. The National Research Council have now warned that they are adopting a more stringent policy under which it may be more difficult for Athlones to obtain N.R.C. scholarships at the end of their Fellowships. Of the seventeen 1961 Fellows in this category, ten obtained N.R.C. scholarships.

Athlone Fellowships Conference

The 4th biennial conference, for the 1962 and 1963 Fellows, will be held in London on Tuesday, the 24th March 1964 when it is hoped that the occasion will prove as stimulating and valuable as were the three previous conferences.

Comments and Advice on Current conditions in Britain

1961 Fellow, Donald Woods, and his wife Diane, who returned to Canada in November 1963, have kindly offered to advise new Fellows and/or their wives about current conditions in Britain. They had a wide experience here, having been located in Yorkshire, South Wales and Lancashire; he with chemical engineering firms for the whole of his Fellowship and his wife in teaching and commercial work during that time. His work brought him into contact with a number of universities and technical colleges and he attended several technical conferences sponsored by the Institution of Chemical Engineers.

They also travelled extensively and thus have had first-hand experience of many areas of Britain.

Selection Tour for the 1963 Awards

by F. E. A. Manning, C.B.E. (Athlone Fellowships Adviser)

Each year sees an increase in the number of Canadian Universities wishing to participate in the Athlone Fellowship Scheme and in 1962 there were Interview Boards at 18 universities or Colleges, the newcomer being the Royal Military College where 5 candidates were seen. A visit was paid to Essex College of Assumption University, Windsor, in anticipation of candidates presenting themselves from the University of Windsor, as it is now called.

My tour was, as ever, most enjoyable and lasted just eight weeks, so I had time to look around and see developments in universities and also to visit some interesting firms and other establishments. Absorbing the general atmosphere and getting to know the minds of people in many different parts of the country is extremely valuable to the Adviser in his task of comparing candidates on a country-wide basis.

This was the second tour since the quota system had been abolished for Group A candidates and now the candidates considered best qualified in the country as a whole are selected, just as has always been the practice with Group B candidates. The number interviewed in 1962 was 150, made up of 113 in Group A and 37 in Group B. This was an appreciable decrease on the previous tour when 186 candidates were seen, 127 A and 59 B, but I was not at all disappointed, for a certain amount of elimination had taken place and a high proportion of the candidates seen were well in the running for a place. I hope the process of pre-elimination will be adopted as standard practice generally for the attributes that make up a good Athlone Fellow are now very widely known and would-be applicants who have no chance of a place can be readily identified.

Owing to a withdrawal at the last minute, only 40 Fellows arrived in September 1962 and so we were able to offer 42 places this year, all of which are filled. I was pleased to be able to meet the party on its arrival at Waterloo Station and found them in very good heart and pretty well indistinguishable from previous batches, even to the extent of the usual couple of Fellows who had brought wives with them after avowing with a confident smile at their interview in 1962 that they would certainly be single on arriving in England!

The programmes chosen were much the same as the general run, 2 choosing two years in industry, 18 two years at a university and 21 a mixture of university and industry. The first Athlone Fellow to choose a 1 year Fellowship makes up the total, and he is spending his year at a university. This year, 13 universities or colleges in Great Britain have Athlone Fellows, which is to me a very gratifying spread.

After two years in post, I have found there are certain points of general interest that are not so well known in Canada as they should be. There are still far too many

Fellows who want to take a Master's degree in one year purely by course work. This procedure is not available in Great Britain. Most universities, including London and Cambridge, still only give a Master's degree in engineering by research and this takes two years. Aberdeen, Birmingham and Swansea offer a 12-month programme in certain fields, but all require work on a project even if part of the time is taken up by courses. Some other universities, such as St. Andrews, Manchester and Sheffield, say that a Master's degree can be obtained in twelve months or thereabouts provided that the first degree was of good Honours standard, but these are all degrees by research work. A Ph.D. degree takes 3 years, unless the Fellow has a Master's degree before coming to England, in which case the time could be shortened In this connection, I must point out that Athlone Fellowships are for two years only and there is just no possibility of extending the Fellowship for a third year. Moreover, the National Research Council of Canada have warned us that Athlone Fellows must not expect their third year to be financed by a N.R.C. grant as a matter of course. 17 Fellows applied for N.R.C. assistance this year, but only 10 were successful, and we can expect no better results in future years.

The main advantages of Athlone Fellowships over most other awards seem to me to be firstly, the possibility of having some industrial training and some academic training, and secondly, the freedom of choice both of general programme and of a particular college that is available so far as is practicable and in a Fellow's own best interests. It has been found by many Athlone Fellows that a year in industry followed by a year at a university giving a Master's degree in that time is extremely useful, but the Scheme is very flexible. Unfortunately, there are factors operating against getting all Fellows into the precise industrial enterprise they put down as their first choice, but quite a number are so placed and others are fixed up in a way suitable to them.

It is not always understood that Athlone Fellowships are engineering awards for further engineering training or experience in the United Kingdom. Programmes based on pure science, or on economics, or on industrial administration are no doubt very worthy, but are just not acceptable Athlone programmes, with the solitary exception of Sir Arnold Plant's special Diploma course in Business Administration, which may only be taken in the second year of a Fellowship.

Now a word about wives. It is clearly laid down that there is no marriage allowance, but even so each year some of the married Fellows, particularly when dependents are involved, have not made quite sure that they have adequate funds to support their families.

To sum up, the Athlone Fellowships have certain special advantages and certain disadvantages which should be weighed up before an application is made. Competition is now very keen and the Fellowships will go to those most nearly

matching up to the ideas and ideals of the Scheme. These points are, of course, generally known throughout the Canadian Universities concerned, but Athlone Fellows Associations and others who are asked for advice from a prospective candidate may be able to say whether the Athlone Scheme is the best one for him. The Athlone Fellows Associations are already doing good work in giving advice to those newly awarded Fellowships - and their wives - before they leave for the United Kingdom, and I hope this work will continue. I hope, too, that they will extend the field to giving advice to prospective applicants and, to this end, will keep in close touch with the Department of Engineering at their local university and offer to give such advice. I thought that the kindness I met with on my first Selection Tour in 1961 might have been partly stimulated by a desire to ease the path of a raw novice and that a certain toughness might be evinced on my second trip. On the contrary, the welcome, the hospitality and the friendliness on all sides, whether from old friends or from new contacts was overwhelming.

I write this within a few hours of leaving for the 1963 tour and I am looking forward to it more keenly than ever. I am immensely grateful to all who befriended me last year, many of whom will read this, and I am proud to be playing a substantial part in this valuable scheme which has forged and continues to forge links of lasting friendship between engineers of our two countries.

Athlone Fellowship Newsletter #9, January 1965

Forward by Sir Julian Pode, J. P.

(Chairman of the Managing Committee in the United Kingdom)

For the sixth successive year I am happy to contribute this foreword to the Athlone News Letter.

In the exciting times in which we live, the fields of science, technology and higher education are changing and there exists an ever present challenge to the young graduate engineer to develop a resourceful approach to the new problems which present themselves. It is my belief that the Athlone Fellowships Scheme provides an excellent opportunity for the young Canadian graduate engineer to continue his training and further his experience. By providing this opportunity, the Scheme must surely be making a worthwhile contribution to good Anglo-Canadian relations.

In March 1964 I attended the Biennial Conference Of the 1962 and 1963 Fellows held at the Board Of Trade's new Office In Victoria Street, London, S.W.I. The conference was a great success and provided, as on previous occasions, an unfettered opportunity for the Fellows to give us their views during the day - and to meet each other at a cocktail party in the evening. We are grateful to Mr. Edward D. L. du Cann, M.P. (at that time Minister of State), for opening the Conference, and to Sir Richard Powell, Permanent Secretary to the Board of Trade, for acting as host during the evening.

The Athlone Fellowships Managing Committee has experienced some changes. Three stalwarts, Miss S. M. E. Goodfellow, Mr. E. W. D. Negus and Mr. J. F. Palmby (Secretary of the Committee) all of whom have done excellent work on behalf of the Scheme, have been replaced by Mr. C. Freedman, Mr. J. H. Lawrence and Mr. T. W. Turner respectively. Mr. Palmby has been widely known for his sympathetic approach to the problems of the Fellows, and I have no doubt that his methods will be continued in the future.

As Chairman of the Committee I should like to add that it gives me great pleasure to be associated with what I consider to be a very worthwhile enterprise and one which I know has a high reputation in Canada and in the United Kingdom.

The Managing committee of the Athlone Fellowships Scheme have pleasure in issuing this News Letter to Fellows past and present and to all those interested in the Scheme in the United Kingdom and Canada. Reports by Fellows and by their industrial supervisors and university tutors continue to show that current Fellows are maintaining the high standard set by their predecessors. The universities and the

United Kingdom establishments which have accepted Fellows for training maintain their interest in the Scheme and continue to give it every assistance. To these the Managing Committee express their sincere thanks and appreciation.

The Managing Committee also wish to express gratitude to all those in Canadian universities, engineering industries and in offices of the British High Commissioner and to the Senior British Trade Commissioner to whose continued enthusiasm and cooperation the Scheme is greatly indebted.

The 14th group of Fellows arrived on the 17th September, 1964, bringing the total number of awards to date to 540.

Athlone Fellowships Conference, 1964

The fourth biennial conference was held in London on 24th March, 1964 for the 1962 and 1963 Fellows. It was opened by Mr. Edward du Cann, M. P., at that time Minister of State, Board of Trade; Sir Julian Pode , J.P., Chairman of the Managing committee presided.

In welcoming the Fellows, the Minister mentioned that the underlying objective of the Fellowships Scheme was to assist in the development of Britain's trade with Canada. Two-way trade would not thrive, however, if it did not rest on the solid foundation of understanding and goodwill between suppliers and customers . There was sufficient evidence to show that these Fellowships helped to develop that understanding and goodwill and if this continued we should be well content.

The Minister said he hoped that Fellows were enjoying their stay in Britain and that they were finding it possible to see something of the scenery, historic treasures and culture which gave life here its characteristic flavour. He reminded those who were nearing the end of their awards that we did not lose interest in them after they had returned home. We sent them a regular News Letter and our Trade Commissioners in Canada were always pleased to see them. The Minister recommended that Fellows should join one of the Athlone Fellows Associations which had been formed in Canada (Quebec, Ontario and Manitoba).

The Minister concluded by saying that we had been greatly encouraged to learn of the pride felt by former Fellows in having the Award. This was a good advertisement for the Scheme but we did not intend to rest on our laurels and we were always looking for ways of making improvements.

Fellows then dispersed into four groups under the Chairmanship of Officials from the Board of Trade, Department Of Education and Science, Commonwealth Relations

Office and the British Council, to discuss the Athlone Fellowships Scheme and how it works in relation to the needs of Canadian industry.

The consolidated views of the four groups were presented later in the day when all the Fellows reassembled. Spokesmen were: John A. MacKenzie (Nova Scotia Technical College); Irving M. Nitkin (McGill); Jean L. Normand (Laval) and Anthony S. Maxwell (McGill).

The 1964 Group

On the 17th September, 1964, the "Empress Of England" discharged its passengers at Liverpool among whom were the 1964 Athlone Fellows. Included in this group was Miss Hermine Borduas from Ecole Polytechnique who is studying mechanical engineering at Imperial College in her first year. She is our first woman Athlone.

Of the new intake of 42 Fellows, two are one-year awards. Twenty two of the total are programmed for two years at university whilst the bulk of the remainder are scheduled for mixed industry/university courses .

Selection Tour for the 1964 Awards, with Sundry Reflections on the Athlone Scheme

by F. E. A. Manning, C.B.E.(Athlone Fellowships Adviser)

Literally on the eve of leaving for Canada for another round of Interview Boards, I am writing about my 1963 Tour. This has some advantages, for I have been able to welcome the 1964 Fellows and to see them settled in before writing about them. Moreover, another biennial Conference has taken place and I can add some thoughts inspired by it.

The most memorable feature of this tour was the award of a Fellowship to a lady - Miss Hermine Borduas from Ecole Polytechnique. She was not the first applicant of her sex, for one at least was interviewed in the very early years of the Scheme, but she is now here and so she is in a unique position and has made Athlone history. The first candidate from Windsor University was also successful. Dalhousie University was admitted as a participating University for Engineering Physics only and I was sorry that their first candidate, an excellent fellow, could not be given a Fellowship because of the lack of engineering content of his programme and future career. So twenty Canadian Universities are now participating and a very fine cross-section of Canadian graduates come forward each year.

Considerable local sifting of prospective applicants took place so that only 121 candidates were interviewed. 42 awards were made to 34 "A" and 8 "B" Fellows, two of the latter being for one year only. All the successful applicants duly arrived in England in very good heart, 19 married instead of the 12 that expected to be. The distribution between interests is much the same as usual and of the 83 Fellows in the 1963 and 1964 groups, 68 are in 15 British Universities and 15 are in industry.

More British Universities are now offering facilities for obtaining a Master's degree in one year, and this trend is likely to continue. For many Athlone Fellows a Master's degree is adequate and one year of the Fellowship becomes available for gaining experience in industry. At the Conference and in their periodic reports many Fellows stressed the advantage of this and two went so far as to say that Fellows should be directed into industry for a part of their two years. We would not, of course, "direct" anyone to any particular place , but the advantage of the Athlone Scheme in permitting some time in industry as well as giving an opportunity to gain a Master's degree is obvious and cannot be over-stressed. On the other hand, a Ph. D. degree takes at least three years in practically all cases, and the Athlone Scheme is not geared to this. Only half of the applicants for N. R. C. awards were successful this year and it is most important that no one should start a Ph.D. programme without a very clear idea of how he will pay his way after his Athlone Fellowship ends.

Many Fellows have recently commented about the advantages of going to the provinces rather than to London. That to do so is cheaper, especially for married Fellows; that London is not representative of English life; that more contact is made with the people of the United Kingdom; and that more supervision and personal attention are given; these are some of the points made. Other points have been made about Cambridge; that it is excellent for the academic and theoretical side but industrial engineers should be dissuaded from going there; that it is not representative of 'British life' and that it is not very suitable for married Fellows. But the choice under the Athlone Scheme is quite open and we want Fellows to make full enquiries in their Canadian Universities before coming to a final decision. The domestic Branches of the Athlone Fellows Associations can be of great help, starting with prospective applicants and ending with advice to young wives of successful candidates. For my part, I am here to advise, and am always ready to give this service to Fellows. Applicants and prospective applicants, however, should get in touch with the Deans of their Universities; I am afraid I cannot correspond direct with them until they are accepted for Fellowships.

Athlone Fellowship Newsletter #10, January 1966

Forward by Sir Julian Pode, J.P.

(Chairman of the Managing Committee)

I am very glad to be able to introduce the News Letter for the seventh consecutive year.

Since the last Newsletter, the Scheme has continued to operate as smoothly and successfully as ever. The 1965 group of Fellows duly arrived in September. There were forty-four of them this time, twenty-five of whom were accompanied by their wives. This brings the grand total of people who have won the award since it was instituted in 1951 to 584.

With 500 past Fellows now on our books, the Scheme has reached a stage when there is a substantial body of trained engineers in Canada who have spent some time with us through winning one of these awards. I am particularly glad to know that the Branch Associations in Canada are thriving. I see that the Ontario Branch has well over 100 Fellows living near enough to take part in its activities, and that several Fellows can now be employed by the same company. It must give a considerable feeling at community to a Fellow when he comes across a colleague who, like himself, has studied or worked on the other side of the Atlantic under the Scheme.

1966 is a year in which we hold the biennial Conference. I hope to be present, together with members of the Managing Committee and the officials who administer the Scheme.

It gives me great pleasure to be associated with the Athlone Fellowships. As the years go by I become more than ever convinced that it is fostering understanding between Britain and Canada in a way that benefits not only Britain's exports to Canada (though we are glad of that), but also reinforces the whole basis at the industrial and commercial relations between our two countries.

Newsletter No. 10—Managing Committee Report

The Managing committee of the Athlone Fellowships Scheme have pleasure in presenting this News Letter to Fellows past and present and to all those interested in the Scheme in Britain and Canada.

The final reports submitted in 1965 by the 1963 Group of Fellows were particularly satisfactory.

To all the universities, firms and other establishments in Britain who maintain an interest in the Scheme by accepting Athlone Fellows, we express our sincere thanks and appreciation. To The British Council we owe a debt of gratitude for their advices to the Fellows, not only at the time of their arrival but throughout their stay in Britain.

The Managing Committee also wish to record their gratitude to all those in Canada, the universities and in the engineering industries, who are contributing to the successful operation of the Scheme.

The 15th Group of Athlone Fellows arrived on 23rd September 1965, bringing the total number of awards to 584.

Selection Tour for the 1965 Awards by F. E. A. Manning, C.B.E., M:C., C.Eng.

This time last year I did not expect to continue as Adviser beyond September 1965, but I am very happy to be still doing that important work. I am therefore on the eve of another selection tour when writing these lines. I am looking forward with intense pleasure to meeting many who are by now great friends of several years standing and to attending the Board meetings when many fine young Canadian Engineers will be interviewed.

Those selected In 1964 for the 1965 Fellowships were well up to the high standard of most Fellows in recent years. All the twenty participating Universities presented candidates for "A"-group Fellowships, and 32 of these were awarded, distributed among these universities. One of these was not taken up by the applicant selected, but his decision to go to Australia instead of to Cambridge reached us in time for a reserve from another Canadian University to accept. There were 12 awards to the "B"-group Applicants, 8 for two years and 4 for one year. In all, a total of 44 Fellows from universities arrived in this country in September 1965, the highest number to arrive in any single year so far.

Of the 42 Fellows who came here in 1964, one returned home shortly after arrival, making it possible for 32 "A" awards to be made In 1965 instead of the 31 normally available. Two other "A"-Fellows returned to Canada after taking their M. Sc. degree in one year, but we did not know of their intention in time to enable us to increase the number of "A" awards for the 1965 group. Two one-year "B"-Fellows also left us in normal course, leaving 37 of the 42 '1964' group still in this country. There is now a total of 81 present holders of the Award in Britain. Sixty eight of these are in 14 British universities and 13 are in Industry. The spread throughout Britain is reasonably good

except that slightly more than usual, many of them married, have come to London, in spite of my warning words in last year's News Letter. For most Athlone Fellows, more personal supervision and excellent tuition and facilities will be found outside London; also the cost of living for married Fellows is extremely high in London.

The number of wives, 25, who arrived in 1965 is the greatest in any year so far. The British Council took extra care to make them welcome. An Indoctrination hour with some ladies from The British Council and some wives of '1964' Fellows proved immensely popular and will certainly be repeated for the next arrivals, probably with more time allotted to it.

I should perhaps mention here that where wives are envisaging working in Britain in their professional capacity, e.g. as teachers or nurses, they should make application in good time, notifying their qualifications, so that they will know in advance what their position will be. Teachers should apply to the Department of Education and Science, Teachers Qualifications Branch, Government Buildings, Honeypot Lane, Stanmore, Middlesex, England; nurses to The General Nursing Council, 23 Portland Place, London, W.I., England, stating the name of the hospital where they did their training.

The booklets about the Athlone Fellowships have been revised to include those small changes that take place from time to time in the light of experience. To make sure that you have read the latest issue, see that each of the two booklets has "Revised 1965" on the front cover. The larger booklet "The Athlone Fellowships—Experience In Britain Canadian Engineers" is known as the Red Book from its cover. It has a new set of Photographs in one of which an Athlone Fellow appears; and a new and much fuller list of one-year M.Sc. and Diploma courses notified to us by the leading U.K. universities about the Athlone Fellowships, to give the up-to-date picture of the scheme as it now is, and of the opportunities available. It will be noticed that the engineering essence of the Fellowships is given slightly more emphasis. The smaller booklet, giving the conditions of the award and general information, has a bright yellow cover. It is intended only for those who succeed in getting a Fellowship and the book has not required the major re-writing carried out in the Red Book. The welcome news that the maintenance allowance has been given a modest increase was received while the Yellow Book was in proof stage and the new figure of £678 a year is therefore shown in the book. General Condition (11) concerning return to Canada on the expiration of the Award has been unchanged certainly for 9 years, and it also appears in very general terms on page 3 of the Red Book. It is, of course, a point of honour that such a Condition should not be broken and cases have been very rare indeed. It is a matter of real regret to me that two of the very few cases known have come to light in the last two months, and in one of them, a Fellow chosen during my tenure of the post of Adviser, was concerned.

Athlone Fellowship Newsletter #11, January 1967

Foreword By His Excellency The High Commissioner For Canada In The United Kingdom - The Hon. Lionel Chevrier, Q. C.

I am very pleased to have this opportunity to contribute a preface to the Athlone Fellowships News Letter for 1967 because the year marks a most significant stage in the growth of our country.

One hundred years ago there was but a small collection of British colonies on the Atlantic coast of Canada. In 1867 four of them, Nova Scotia, New Brunswick, Ontario and Quebec combined to form a Confederation of the Dominion of Canada, and in 1967 we celebrate the Centennial of that occasion.

Canadians everywhere will find new pride in the Centennial, not so much because it marks a birthday in a mature nation, but because it provides an opportunity to look back and, by examining the past, plan the future better.

Athlone Fellows, (past, present and those to follow) have a special part to play in development of this great country of ours, for it is upon men like you with high technical, academic and managerial skills that Canada will depend for her prosperity and progress. The Athlone Fellowship scheme which, since its inauguration in 1951, has brought more than 600 Canadian engineers to Britain for post-graduate studies or practical experience, and returned them to Canada to follow their chosen careers, provides these technical and cultural links between Canada and the United Kingdom. These links will, I am sure, consolidate the goodwill and understanding that have for so long existed between the two countries.

The generations that have gone before have left the Canadian people a great heritage it is up to those of us who follow to match their spirit of faith, optimism and confidence.

Lionel Chevrier

Newsletter #11—Managing Committee Report

Sir Julian Pode, J. P., Chairman of the Athlone Fellowships Managing Committee retired from the Chairmanship after serving for seven years. During this period he has seen nearly 300 Athlone Fellows come to Britain under the scheme and has displayed lively interest in their welfare and progress. The Board of Trade are most grateful to Sir Julian for the time and energy which he has given to the scheme. Sir Julian's successor will be announced later.

To all the universities, firms and other establishments in Britain who maintain their interest in the scheme by accepting Athlone Fellows, we express our sincere thanks and appreciation. To the British Council we owe a debt of gratitude for their continued services to the Fellows, not only at the time of their arrival but throughout their stay in Britain.

The Managing Committee also wish to record their thanks to all those in Canada, in universities, the engineering industries and in the British Government Offices, who are contributing to the successful operation of the scheme.

The 16th group of Athlone Fellows arrived on 24th September, 1966 bringing the total number of awards to 628.

Selection Tour for the 1966 Awards

by F. E. A. Manning, C.B.E., M.C., C.Eng. (Athlone Fellowship Adviser)

Owing to the premature departure of five of the 1965 Year Fellows being notified to in good time, we were able to award a total of 44 Fellowships for 1966 without overloading the interview Boards which met in the fall of 1965 were held in 16 participating universities. These universities presented a total of 96 "A"-group candidates and eventually 36 of these Fellowships were awarded, distributed among 14 Canadian universities. There were 34 applicants for 'B'-awards, but not so many as had reached the standard of the 'A' applicants. Since 3 'B' Candidates declined offers, only 8 awards were finally made in this group, 2 being for one-year Fellowships.

Three of the 'A' candidates in the first list of awards also declined and so did 2 of the reserves When their turns came. Usually none or only one of the reserves secures a Fellowship, but this year every reserve had an offer. This does not mean any lowering of our standards, for we always have several more excellent candidates than we have places to offer. One of our applicants to whom we offered a Fellowship was also offered and decided to accept a Commonwealth Scholarship, which award pleased me as an indication that Athlone applicants are no longer at a disadvantage when

they apply for Commonwealth Scholarships. In spite of some disappointment at so many refusals of Fellowships from those on the first list, I was glad that replies with only one exception, were prompt and so we were able to make offers to reserves fairly quickly. Nevertheless, some difficulty was experienced in fixing the desired programmes and, in fact, one was only settled just a week before the Fellow arrived in this country. Correspondence MUST by Air Mail!

A total of 44 Fellows arrived in September 1966. There are 36 from the 1965 intake still in this country, so the total number of Athlone Fellowship holders 1n the Un1ted Kingdom for the year 1966-1967 is 79. Of these, 62 are in 15 different Universities or colleges and 17 are gaining experience in industry. I have already mentioned that five of the 1965 year Fellows departed prematurely: that is to say, after completing a 12 month University programme. Two of these were 'B'-Fellows with children, who might have opted for a one-year Fellowship in the first place. One of the "A'-Fellows has gone to France for a business course and the others have jobs to go to in Canada. The other Fellows at this year's biennial conference gave those who had accepted a two-year Fellowship and proposed to abandon it after one year a hot and strong verbal castigation, dishonouring their obligations and I believe that this lashing played some part in a change of heart of yet another 'A'-Fellow who withdrew his written decision to go home after one year and will now stay to complete work for a Ph.D. degree.

I am glad to record that we have a Fellow at Cranfield again after a lapse of seven years. The (sadly misnamed) College of Aeronautics at Cranfield used to be popular with Athlone Fellows but it is not yet a degree-giving college, though it may well be one in course, and so has declined in attractiveness for Athlone Fellows, who now want to achieve at least a Master's degree out of their graduate studies. Several Colleges of Advanced Technology have become Universities in the last 12 months, and I am particularly proud that five Athlone Fellows have just started at The City University, for this is the status of my own old College, previously known as the Northampton College of Advanced Technology London, one of the finest institutions of its kind in the United Kingdom. I urge new Fellows to study carefully Appendix No. 1 (September 1966) to the Red Book "In Britain for Canadian Engineers", which gives as much information as could be collected in time, about 12-month opportunities in the new Universities, as well as some added opportunities in the old ones. The new Universities have also Research facilities for 2-year (or longer) periods leading to higher degrees by Research. I am very willing to give advice on places offering special facilities when I know in some detail what Fellows really want. I also intend to give advice against the Fellows' choice if experience has shown that alternatives available are more suited to Athlone Fellows.

I visited Calgary, Loyola and Sir George Williams Universities and the Athlone Fellowships Managing Committee have decided to add the names of Calgary and Sir George Williams to the list of participating Canadian Universities. I shall visit other Universities during my 1966 travels and in future years, but no more are expected to seek recognition for Athlone Fellowship purposes during 1967.

Athlone Fellowship Newsletter #12, January 1968

Foreword By Sir Maurice Fiennes, C. Eng., M. I. Mech. E.

(Chairman Of The Managing Committee In The United Kingdom)

When the President of the Board of Trade Invited me to become Chairman of the Managing Committee last year, I was very pleased to accept not only because the Companies of which I am Chairman and Managing Director have links in Canada, but also because I am an engineer and keenly interested in technological education. Modern Industrial methods present a challenge to all engaged in Industry; developments happen so quickly that we must get as much training and experience as we can, not only to fit us for the job in hand but to enable us to adapt to new situations. Particularly, we are always looking for new and better techniques, and for the application of research and new knowledge in day-to-day activities. The Athlone Fellowships Scheme provides such opportunities for Canadian engineers to tap the resources which U.K. Industrial organisations and universities have to offer and I wish the scheme continuing success.

I have already had the privilege and pleasure of meeting many of the Athlone Fellows who started their awards in 1967 and I trust another opportunity will arise in April this year when the biennial conference in London will bring us all together for one day to discuss how the scheme is working.

Newsletter No. 12—Managing Committee Report

Report by Sir Maurice Fiennes, the new Chairman of the Athlone Fellowships Managing Committee, is Chairman and Managing Director of Davy-Ashmore Ltd. of Sheffield. We are most grateful to him for accepting the Chairmanship In the face of all his other commitments in the business world.

The Managing Committee wish to record their thanks to all the Institutions in Britain who continue to co-operate in the Athlone scheme. In Canada, also, there is a great deal of work done by the universities, the engineering Industries and the British Government Offices, and the Managing Committee express their appreciation for the help that is given to make the scheme a success.

The 17th group of Athlone Fellows arrived on 12th September, 1967, bringing the total number of awards to 673.

Selection Tour For The 1967 Awards

by F. E. A. Manning, C.B.E., M.C., T.D., C.Eng. (Athlone Fellowships Adviser)

My sixth tour presented novel features, not all pleasant, as well as the usual crop of kindness and hospitality that makes my annual trip so completely enjoyable. It was something new for an Athlone Fellowships Adviser to be invited to join a Lieutenant Governor on the dais at the opening of a new office building for a provincial Association of Nurses, as I was in Vancouver. It is unprecedented for an Adviser (and very rare for any Englishman) to be "called" as an engineer and given an Iron ring, as I was in "Camp Number 11", one of my proudest honours. The rumour had gone round Kingston, Ontario, that it was my last trip (my first "last trip" was in 1963), and the Deans at Queen's University and the Royal Military College presented me with crested cufflinks, which I always wear, and a crested lighter which I carry. Needless to say I am not inclined to return these gifts even though they were inspired by rumour which turned out to be false! Less pleasant were the effects of the fortnight's strike of maintenance staff of Air Canada, for re-arranging a tight schedule based on 400-500 m.p.h. transport to one based on 50 m.p.h. involved a lot of personal inconvenience, but with the willing help of British Government staffs at various centres, no appointments were missed. The last straw was atrocious weather during my last four days, which unfortunately prevented me from visiting Moncton and Acadia Universities and nearly delayed my return to England by a day - in fact, I thought I had missed my air connection at Dorval by half-an-hour, but luckily the one-hour difference in time between Halifax and Montreal operated favourably and I had just half-an-hour for the change of aeroplanes. So all was well, and another immensely happy tour was completed.

We allowed for two Fellows going home after one year who had accepted two-year Fellowships and we offered four one-year Fellowships in place of two two-year Fellowships in the "B" group, so that the final awards numbered 45, the highest total so far. Candidates were interviewed at 18 of the 22 participating Universities and

successful candidates came from 15 of the 20 Universities eligible to present candidates in 1966, plus one from a sixteenth University who declined his award for personal reasons. Two others declined for personal reasons and two accepted a Commonwealth Scholarship when offered. We are always prepared to accept the fact that a man who is fortunate enough to be offered both the Athlone Fellowship and the Commonwealth Scholarship may accept the Commonwealth one. All we ask is that we are told quickly so that we can draw on the reserves. A total of eight candidates, including two "B" candidates, who had been notified that they were on the list of reserves, were eventually offered awards and all accepted them. This shows that the letter notifying a candidate that he is listed as a reserve is by no means a matter of form, and in fact we increased the number of reserves to nine "A" and two "B" (in 1967) because we used all the reserves in 1966.

The 1967 group included our second lady Athlone Fellow, Mrs. Monique Arvisais, and she makes history by being the first from the "B" group. Mrs. Arvisais will work for the Master of Philosophy degree at Imperial College in Medical Electronics, which is a. happy choice as she commenced her university studies in Biology before she took up Electrical Engineering.

A total of 44 Fellows arrived in September 1967, and one followed in December because his course in Machine Tool Technology started in January 1968. There were 36 remaining from the 1966 intake, and the grand total of 81 for 1967/68 comprises 11 in industry and 70 in universities or colleges, three of which are taking Athlones for the first time.

Replies to the offers of awards were on the whole prompt, but considerable administrative inconvenience was caused in a few cases by delay in notifying the programme desired. Placings must start immediately after awards are announced and prompt replies, by Air Mail, are required to letters from the Secretary or myself. I have prepared a list of one-year M.Sc. courses known to us to be available this year and a copy has been sent to Deans and will be sent to all successful candidates.

Enquiries about details of programmes or requests for brochures should not be addressed to the Board of Trade but to the Universities concerned and Must be sent by Air Mail.

Athlone Fellowship Newsletter #13, January 1969

Management Committee Comments

In presenting this edition, the Managing Committee wish to record their appreciation and thanks to all those in Canada and Britain who co-operate in the Athlone scheme.

A new group of 43 Fellows arrived in Britain in September, 1968, bringing the total number of awards to 716.

Selection Tour for the 1968 Awards

by F. E. A. Manning, C.B.E., M.C., T.D., C.Eng. (Athlone Fellowships Adviser)

This tour, my seventh, was an extremely happy one. I had been privileged in previous years to watch the growth of EXPO from nothing but an idea to a mass of buildings, roads and so forth, so I made it my business to start my tour earlier than in previous years and to spend a few days there. So much has been written and said about EXPO that I need do no more than record that it surpassed my most extravagant expectations and was a breathtakingly outstanding achievement. The rest of my tour was rather compressed. I was once again unable to visit Moncton and Wolfville in the last few days because the weather was too bad and I could not wait for it to improve.

The distribution of candidates between Universities varies a little from year to year, but the total number of candidates formally interviewed after some local sifting was 103, the same as in 1966. This figure does not include five who did not attend interviews to which they were summoned and one who was over age and whom I intercepted by telephone at his home just as he was leaving for work on the day appointed for his interview. Sir George Williams University had been accepted as a participating University and three candidates from it were interviewed, one being successful. There were three lady applicants of whom two were successful. This is remarkable in itself, but still more so is the fact that one of the lady Athlone Fellows married one of the other Fellows just before they left for Britain.

As an experimental measure, candidates in Group A who had applied for a mixed programme, part industry and part university, were asked if they would prefer a 1-year fellowship. Those who replied affirmatively were subsequently asked to confirm this in writing and a number did so. Eventually, four 1-year A-group Fellowships were awarded, and in future any candidate, A or B, may apply for either a 1-year or a 2-year Fellowship. In fact, there will from now be no separation in groups A and B.

Four successful applicants declined to accept Athlone awards offered, which is more than usual, but a substantial number of applicants were notified that they were on a reserve list. Some of these declined a late offer, but four reserves were given Fellowships in place of those who declined the original award. Thus the reserve list is quite meaningful, although of course nobody knows in advance how many on it will be offered awards.

The 108 eligible applicants comprised 92 A-group and 16 B-group candidates and they came from all but two of the 22 participating Universities. 43 Fellows (including the two ladies) arrived in September 1968, by air, and these came from 16 universities. Unfortunately, there were two very late withdrawals after we had received as many acceptances as in 1967, viz. 45 who would have come from 17 universities. 35 of the 1967 Fellows are still in Britain. The grand total of 78 Fellows here for 1968/69 is made up of 71 in universities and 7 in industry, but one of those in a university will go to industry in January 1969. There are Athlone Fellows in 19 different British Universities, but surprisingly only one Fellow is in a Scottish University and none in a Scottish firm. The reason for my surprise is that quite a large number of Fellows are of Scottish extraction and we naturally expected that more would go to the land of their forefathers when they had such a golden chance.

Athlone Fellowship Newsletter #14, January 1970

Managing Committee Report

In presenting this edition, the Managing Committee wish to record their appreciation and thanks to all those in Canada and the United Kingdom who co-operate in the Athlone Scheme.

A new group of 47 Fellows arrived in Britain in September, 1969, bringing the total of awards to 763.

Interview tour for the 1969 Awards

by F. E. A. Manning, C.B.E., M.C., T.D., Hon. M.A., C.Eng. (Athlone Fellowship Adviser)

I allowed myself time to visit Acadia and Moncton Universities as well as the twenty participating Universities which presented candidates for Fellowships. The extra visits were well worth while because we are not familiar in Britain with the practice of taking a part of an under-graduate course in Engineering at one University and the remainder at another. I have now seen several of these 'feeder' Universities in Canada and have assessed the advantages and the disadvantages of the system. A Faculty of Engineering is a very costly luxury (or status symbol, perhaps) and there are considerable economies to be achieved by keeping the number of degree-giving institutions to a minimum.

Two participating Universities had no candidates for interview but the remainder had 143 eligible candidates. This was an increase of 40 over the number in each of the two previous years and was totally unexpected. It was no doubt partly due to a general lack of sympathy with present conditions in the USA and to some uneasiness about the draft laws there. We were in some cases hard put to it to complete interviews of normal duration in the time programmed, which was based on the numbers interviewed at each centre in the last few years. However, I am sure that no candidate was put at a disadvantage and Boards were most co-operative in sitting for longer periods than they had expected.

There was a substantial increase of very good candidates. The possibility of opting for one-year Fellowships was popular and, as roughly 3 one-year Fellows can be taken for the same cost as 2 two-year Fellows, and also some 1968 Fellows unexpectedly decided to go home after one year, we were fortunately able to make offers to 47 candidates. Four of these declined for good reasons, such as a Rhodes Scholarship in

one case and a Centennial Scholarship in another, but we were able to pick up excellent substitutes from the Reserve list. We actually welcomed 35 two-year and 12 one-year Fellows on September 18th 1969. This is the largest number of Awards we have made in any year and fully justifies the award of one-year Fellowships.

The different conditions applicable to A-group and B-group candidates have gradually been lessoned over the years and have now finally been abolished, but for purposes of comparison I can record that, of the 143 who were interviewed; 119 would have been A-group and 24 would have been B-group under the old nomenclature. This was no marked change in relative proportions. There were no ladies among the applicants.

The 47 successful Fellows came from 19 different Universities, which was a gratifying spread, in fact the best since the 1963 selection for 1964 Fellowships. Two or the Fellows came over early in 1969 to start research work at Imperial College and Manchester University but they had to make their own financial arrangements. We cannot start Fellowships in advance of the arrival of the main body and also the cost per head for the chartered aircraft is increased, which adversely affects married Fellows who have to pay their wives' fares.

Since 33 of the 1968 vintage are still here, we have a total of 80 Fellows for 1969/70; made up of 70 in Universities and 10 in industry. There are Athlone Fellows in 17 different Universities, but in spite of the surprise I expressed last year at the small numbers in Scotland there is no one at all North of the Border this year.

Honorary Degree for Mr. F. E. A. Manning (Adviser)

It is customary for the University of London to celebrate Foundation Day annually on the Thursday nearest to 28th November, for on this date in 1836, the Charter of the present University of London was sealed. The celebration now includes a Dinner followed by an Honorary Degree ceremony at which the Chancellor, Her Majesty Queen Elizabeth the Queen Mother, confers Honorary Degrees on those whom the Senate has resolved to honour. The inclusion of Engineers among the recipients is not frequent, but on 27th November, 1969, Sir Arnold Lindley, an outstanding English Mechanical Engineer, and Professor P. L. Nervi, the famous Italian Structural Engineer, received Honorary Doctorates. We are very pleased to report that our Adviser, Mr. F. E. A. Manning, also a Mechanical Engineer, received the Honorary Degree of Master of Arts. In his case the award was not in fact for Engineering achievements, nor for services to the Athlone Fellowship Scheme but for nearly 50 years of voluntary activities within the University of London, in connection with

Students, Convocation and the Senate. One of his self-appointed tasks was looking after the finances of the University of London Union from 1928 to 1969, a period of 41 years and, to use his own words, 'They are not bankrupt yet!'

Report of the Working Party on the Industrial Training of Overseas Nationals

The Working Party was set up in July 1968 to review present arrangements in the United Kingdom for the industrial training of overseas nationals, particularly from the point of view of what. contribution these trainees can be expected to make to furthering Britain's export trade. Also considered was the work being done in this field by the United Kingdom's trading competitors and any changes might be made in existing British arrangements in the interests of export promotion.

It is not intended to go into the details of the Working Party report the recommendations of or which have been accepted by the British Government. A large cross section or British industry was approached for comments and suggestions on the current. training programmes and these were fully examined by the Working Party. The Athlone Fellowships scheme was included. The Report was published on 26th September, 1969; copies may be purchased from Her Majesty's Stationery Office, 10s.

The main conclusion or the Working Party was that there should be a shift within the ceiling of present Government expenditure from the current concentration on Canada to more being done for trainees from the rest or the Commonwealth, Europe and the developing countries. They recommend that the Athlone Fellowships scheme should end. Current awards will run their normal course.

The Working Party found that the Athlone scheme had worked very well and had made a valuable contribution over the last eighteen years. However, since the inception of the scheme in 1951, Canada has rapidly developed in all spheres and can now offer extensive training facilities herself. It is also a fact that there is now a much wider knowledge in Canada or what the United Kingdom has to offer in the way or engineering exports.

Of the major block of Government expenditure on training programmes—the £140,000 per annum spent by the Board of Trade—over two thirds goes on the Athlone scheme and the Working Party considered that it was no longer right to devote such a high proportion of the resources available to a single country.

The recommendations are that:

- (a) a British Office for Trainee Exchange be set up to encourage the exchange of trainees not only between Britain and the rest or Europe but also with other developed countries;
- (b) increased Government support should be given to the Overseas Scholarships Scheme or the Confederation of British Industry. This Scheme, instituted in 1950, brings to Britain about 100 scholars a year from the Commonwealth and developing countries for training in a wide variety of engineering industries;
- (c) the Institute of Directors, whose scheme brings overseas nationals to Britain for intensive tours of industry, should be helped to expand their scheme;
- (d) the Athlone scheme should be ended (and the money currently spent on the scheme diverted to the other recommendations). The usual number of Athlone Fellowships will be offered in 1970, thereafter no further awards will be made. The Fellows appointed in 1970 will be the last. But Canada will be included in the expanded CBI Overseas Scholarships Scheme, on the same basis as other Commonwealth developed countries;
- (e) finally, the Report suggests that training by private industry might be helped if more overseas nationals were made eligible for training grants under the Industrial Training Act, 1964.

Athlone Fellowship Newsletter #15, January 1971

Managing Committee Report

In presenting this edition, the Managing Committee wish to record their appreciation and thanks to all those in Canada and the United Kingdom who co-operate in the Athlone Scheme.

A new group of 47 Fellows arrived in Britain in September, 1970, bringing the total of awards to 810.

Interview Tour for the 1970 Awards

by Dr. F. E. A. Manning, C.B.E., D.Eng., (Athlone Fellowships Adviser)

An article concerning the Report of the Working Party on the Industrial Training of Overseas Nationals appeared in Newsletter No. 14. This Report was made public on 26th September 1969, and we immediately notified the Deans of Engineering in the 22 participating universities. I visited 20 of these during my tour, which started while the news of the ending of the Athlone Scheme was still very fresh in everyone's mind. Although there was universal regret that the selections shortly to be made would be the last, there was not very much surprise: many had expected the scheme to end at the time of the financial crisis in Britain preceding devaluation.

My tour was all too brief, because every university wished to have some ceremony at which thanks could be expressed to the U.K. Government for the Fellowships and also to those in the United Kingdom who had played a part in the running of the scheme. I was indeed fortunate in holding the post of Adviser during the last interview tour, and thus receiving personal tributes which really covered the work of many others who gave their best endeavours to making the Athlone Fellowships successful. The tributes paid touched me deeply and I have many souvenirs to remind me of some of the happiest times in my long life. I am so very glad to have this opportunity of thanking scores of Canadian men and women, not by any means all from the academic world, for their kindness, hospitality and friendship in the last ten years. Although this Newsletter will only be seen by a few of the many members of the British High Commission and British Government Offices in Canada who helped and befriended me, I would like to thank them also.

A total of 146 candidates. from 21 universities were considered by their Deans to be suitable for interview. One was ineligible on age grounds, one did not attend owing to illness, and four withdrew before interview so that 140 were seen by the boards. Although the total number was about the same as in the previous year (when 143

were seen), the distribution varied somewhat, the most interesting change being 32 from the three universities in Montreal against 20 in 1968. 12 of these 32 were offered Fellowships compared with 5 out of 20 in 1968. Under the old grouping into 'A' and 'B' candidates, there would have been 132 'A' and 13 'B' candidates against 119 'A' and 24 'B' in 1968, and 92 'A' and 16 'B' in 1967, ineligible candidates being omitted in each year. These figures show that most candidates were students at the time of interview and in fact the number in full-time employment (the former 'B' group) was the lowest on record. There were no lady candidates.

As in the previous year, we were able to make offers to 47 candidates. Four declined, but one of these accepted a Commonwealth Scholarship instead. It was easy to fill these four vacancies from excellent reserves and 34 two-year and 13 one-year Fellows duly reached the United Kingdom as the last batch of Athlone Fellows, making a total of 810 in the twenty years of the scheme. I was hoping to record that every participating university would have a representative in the final group, but in fact only 18 had successful candidates and one of these is represented by a M.Sc. graduate who took his first degree elsewhere. The calibre is high, as indicated by the brilliant records of many who graduated in 1970, after the selections were made and the awards announced.

We have 34 Fellows remaining from the 1969 intake and so we have a total of 81 Fellows for 1970/71, made up of 69 in universities and 12 in industry. There are Athlone Fellows in 19 universities in the United Kingdom; this is a very good spread, but only two are in Scotland.

Further University Honours For Dr. F. E. A. Manning (Adviser)

In Newsletter No. 14 it was recorded that Dr. Manning had received an Honorary Degree from the University of London. We did not know then that the University of London Students Union had also honoured him by renaming their Assembly Hall "The Manning Hall". Simultaneously, the City University conferred upon him Life Membership of the University's Court with the words "your services to the university have been such that [the Council] felt that this Life Membership might be some small recognition of all that you have done".

On 6th May 1970, the 61st Convocation of the Nova Scotia Technical College in Halifax was held, and three honorary degrees were awarded. The ceremonies took place in the Sexton Memorial Gymnasium and the Canadian Armed Forces Band was in attendance. We are pleased to report that our Adviser was granted the degree of

Doctor of Engineering, *Honoris Causa*, for his sterling work for the Athlone Fellowships.

Dean G. G. Meyerhof read the citation, which paid a splendid tribute to Dr. Manning, and asked the President to confer the degree upon him "for distinguished services to his profession and country and for his devotion and personal contribution to the further education and training of many Canadian engineers". This tribute to his work as Athlone Fellowships Adviser is echoed by the sentiments of the Managing Committee and all those who during his ten years as Adviser have met Dr. Manning, especially the 472 Fellows who have come to Britain during this time.

Retirement Of Mr. T. W. Turner MBE., Athlone Fellowships Secretary

Mr. T. W. Turner, MBE., retired from the Civil Service in April 1970. He had been Athlone Fellowships Secretary and actively administered the scheme for 6 years during which time he met 265 Fellows, over a quarter of the total number of Athlone Fellows who have come to Britain. He was well known and respected by all those connected with the scheme and there have been very many tributes from Fellows to his sympathetic help and consideration.

The Managing Committee wish to express their sincere gratitude for Mr. Turners endeavours during his time as Athlone Secretary and their hope that he will enjoy a long and happy retirement.

Athlone Fellowship Newsletter #16, January 1972—The LAST ONE

Foreword By Sir Maurice Fiennes, C.Eng., F.1.Mech.E. Chairman Of The Athlone Fellowships Managing Committee

It is with a mixture of pleasure and regret that I introduce the final edition of the Athlone Fellowships Newsletter.

As you will know, the Athlone Fellowships Scheme will come to an end when the remaining members of the 1970 group of Fellows complete their awards in the autumn of this year. The Scheme has been running for 20 years and during that time over 800 Canadian engineers have been awarded Fellowships and have studied in our universities and worked in our engineering industries. It is a record of which we are very proud and we hope that Athlone Fellows will share this feeling of pride with us.

Of course we regret the passing of the Scheme and this feeling is shared by many people both in Britain and Canada. However, the withdrawal of the Scheme does not mean that our interest in Canada has diminished or that we are not as anxious as ever for Canadian engineers to come to Britain to see what is being done in this country. We know that we have a lot to offer in many fields of advanced technology and we want Britain to continue to be a source of knowledge and experience for Canadians.

We know that much of the attraction of the Athlone Scheme to those who were awarded Fellowships has been the opportunity it has provided for them to visit a country with which they have much in common but which they might not otherwise have seen in depth; and this aspect could well have been as important to them as the main purpose of the Scheme. We are content if this has been so. Our efforts have not been wasted if some hundreds of Canadians look back on their stay in Britain with a feeling of warmth towards the country and its people. I trust that in spite of the inevitable problems of living and working in a country which is in many ways different from Canada, the overall judgement will have been favourable. Our judgement of the Athlone Fellows certainly has been!

The Athlone Newsletter #16-Managing Committee Report

In presenting this final edition, the Managing Committee wish to record their appreciation and thanks to all those in Canada and the United Kingdom who have co-operated in the Athlone Scheme over the past 20 years.

The total number of Fellowships awarded is 810 and the following table shows the relative distribution of programmes since the scheme started in 1951:

Year	2 yrs industry or industrial consultant	2 yrs university college or research	Mixed Course	1 yr only *=univers. **=indust	Total
1951	8	21	8	1*	38
1952	4	17	13	1*	35
1953	16	10	10	1*	37
1954	10	9	15	2(1*,1**)	36
1955	7	11	17	2 (1*,1**)	37
1956	1	19	16	2*	38
1957	2	27	7	-	36
1958	-	20	17	1**	38
1959	-	27	14	-	41
1960	1	27	12	-	40
1961	1	29	10	-	40
1962	-	21	18	1*	40
1963	2	25	14	1*	42
1964	1	23	13	5*	42
1965	-	22	13	9 (8*,1**)	44
1966	1	25	12	6*	44
1967	-	26	10	9 (8*, 1**)	45
1968	-	26	7	10 (9*, 1**)	43
1969	1	24	10	12 (11*, 1**)	47
1970	1	19	9	18 (17*, 1**)	47
Totals	56	428	245	81	810

As the scheme draws to an end, 29 Fellows of the 1970 group are completing their awards and at the time of going to print, 11 of this group have decided to remain to continue research towards Ph.D. degrees. Two others have remained under other auspices after completing l-year Fellowships. 16 of the 1969 group have remained to complete their research towards Ph.D. degrees.

My Athlone Memories

Athlone Part 4

R. L. Bob Hemmings

3rd Revision October, 2021

This is not a formal history of the Athlone Fellowship, but a memoir, a work of reflection, collection, and memory recovery. Names, characters, organizations, places, events, and incidents are either extracts of public documents, information gleaned from hours of internet research, and recovery of memories some of which date back we'll over 55 years. These memories may have been distorted with the passing of time, but reflect the author's concepts of the occurrences depicted. This work is mainly for my wife, my children, and my grandchildren.

Copyright © 2021 by RL Bob Hemmings. All rights reserved.

Contents—Part 4

Forward	5
My Athlone Memories	7
School Selection	7
Getting there—a Story in Itself	7
The Empress of Britain	9
Meeting Canada's Governor General	10
Boarding the Ship	10
The Crossing, September 1962	11
Arrival in Liverpool, in mid-September of 1962	12
Arrival in London	12
First Impressions – What can I say?	15
Dr. Ken Weale	15
Dr. Ken Betts	16
Dr. A. R. Ubbelohde	16
Diversity	17
A Shandy at the Club Pub	18
War Scars	19
The Victoria League	20
The Royal Society	21
Winston Churchill	22
The Last Great Smog of London	23
The Winter of 1962–1963	28
Holiday in Devon	31

The Completion of my Athlone Fellowship	
The Thesis	36
Imperial College Graduates—Recovering your Thesis	37
The Appearance of the Thesis	39
The Athlone Program Evaluation	43
Conclusions	44
Acknowledgements	45

Athlone Fellowship Engineering Education



My Memories

By R L (Bob) Hemmings
Athlone Fellow IC 1962
BSc. Chemical Engineering, University
of Alberta, 1962



PhD, DIC, Chemical Engineering, Imperial College, 1965

Forward

I began this work as I noticed that I was growing older, and had not yet told my children, let alone my grandchildren, why, where and how I had earned my advanced degree. When I recently mentioned the **Athlone Fellowship Program**, even to the educators, I was greeted by a blank look, as if I was speaking in a foreign language. So I decided to undertake a search for some documentation of the **Program**. That was when I discovered that there was little documentation available easily. So, I tried to use whatever resources I could find to compile these documents: **A History of the Athlone Fellowship** which come in 4 parts:

- 1. A Short History of the Athlone Fellowship
- 2. Letters and Comments from the Athlone Fellows
- 3. Extracts from the Athlone Fellowship Newsletters
- 4. My Athlone Memories

And, what was the Athlone Fellowship Program? It was a unique honour and opportunity for recognition of significant Engineering talent, designed for Canadian graduate engineers to take either 1 or 2 years to gain British engineering experience, either academic or industrial. It was thought that, when the Athlone Fellows returned to Canada, such experience would eventually lead to sales of British engineering products and services and thus increase British trade with Canada, to the benefit of both countries. The program began in 1951 and continued for 20 years, to the direct benefit of 810 Canadian engineering graduates.

By chance, one of my close friends is also an Imperial College (IC) Athlone Fellow, Ron Weir (UNB Athlone at IC 1963), passed my name on to Gary Elfstrom (UBC Athlone at IC 1968) who was organizing the 2017 Summer "Athlones at IC" Conference. After sharing much information, he also passed on my need for Athlone information to those Athlones that he knew. Many other Athlone Fellows passed on information to me, including: Dwight Aplevich, Jack Banks, Tom Carter, Peter Castle, Murray Clamen, George Davies, Neville Davis, Bill DeCoursey, Robert Frederking, Ken Johns, Neil MacKenzie, Ken Montgomery, Fred Parkinson, Arthur Plumpton, Ian Rowe, John Sankey, Brian Staples, David Stone, Eric Thomson. And my wife Micheline. Please see the very last section: Acknowledgements.

Armed with this support, I began serious organization of the information that has been shared with me. The document entitled *I—A Short History of the Athlone Fellowship* was the result. And, as a result of perusing all the available information, I have come to more fully appreciate the entire Athlone Experience, which resulted in: *II—Letters from Athlone Fellows*, and *III—Extracts from the Athlone Newsletters*. And now I have developed this document, *IV—My Athlone Memories*, based on my recollection after some 56 years of "storage" in my mind!

And the following is a collection of *My Athlone Memories*.

My Athlone Memories

School Selection

After my selection as an Athlone Fellow in 1962, I reviewed the many possible locations in the UK for continuing my education. I had narrowed it down to 2 Universities:



Imperial College, of the University of London was the first option, as there was a very interesting area of within opportunity the polymerization of under high pressure. This was particularly appealing as I had spent my last summer at the University of Alberta in their High



Pressure Laboratory.

The second option was *Swansea University*, University of Wales. There was a fairly broad selection of research opportunities, and I had thought that living in Wales would provide a significantly different experience than living in London. However, after further exploration and evaluation, I selected Imperial College, Chemical Engineering, in the High Pressure Laboratory, with Dr. Ken Weale as a Supervisor. I was, and still am, proud that my research at IC was recognized in his 1967 book, *Chemical Reactions at High Pressures*, if only as a footnote reference.

Getting there—a Story in Itself

At the time of being awarded the Athlone Fellowship, I was living in Sidney, British Columbia, on Vancouver Island, close to BC's provincial capital Victoria. In those days, 1962, trans-oceanic traffic was almost always by sea. And, although Victoria is on an island bordering on an ocean, it was the Pacific Ocean, a long sail from London, United Kingdom. So, the Athlone organization had me travel by ferry from Victoria to Vancouver by Canadian Pacific ferry. From Vancouver, I

travelled about 2,500 miles (or 3,800 km) by the CP Railroad. Modern trains make the trip in some 94.5 hours, but I am sure that my trip was longer. I remember traveling in coach-class, sleeping in the upper berth. The train was crowded, but as this was my first trans-continental trip, I was distracted by the vastness of the country, by the beauty and size of the mountains between Vancouver and Calgary, by the flatness of prairies as we moved through Regina to Winnipeg, by the wilderness of the forests of the Canadian Shield on the way to Ottawa, then to Montreal, and by the bustle and energy of the traffic on the St. Lawrence River on the way to the destination of my rail journey, Quebec City.

At the time of starting this memoir, I was not quite sure why my trip took me to Quebec City, but I apparently went along for the ride without any questions or complaints. And, although the train was crowded, there were no other Athlone Fellows that I was aware of, so didn't have any traveling companions to share these experiences.

Once in Quebec City, my baggage was off-loaded, and transferred to the docks, where it would await the arrival of my ship. If I recall accurately, it was raining. My travel trunk disappeared in the dark, and I was reassured that it would be moved to the ship when it arrived. I, along with my large suit case, was taken to



the local hotel. The hotel turned out to be the palatial to my eyes which had never before traveled out of BC and Alberta. It was, in fact, the very well known iconic Canadian Pacific Le Château Frontenac, and I was suitably impressed to be assigned a room at the very top floor. And I continued to be impressed for only a few minutes when a loud rumbling

sound let me know that I was in the room right beside the elevator lift mechanism, which advertised itself to me all night long. Eventually it must have worn me out. When I had wakened, I didn't have much time to have breakfast and catch a taxi to the docks. I don't remember the time, but it was quite early, cool, and dark. I, with my suitcase, was delivered to the wharf and told to wait. I was assured that my trunk would be loaded when I was. After a short wet wait, I was led to the edge of the wharf, where the pilot tender was just pulling up. Out in the river was the ship waiting for me. In my mind, it was, maybe, the CPR Princess Elizabeth, or at least that's the only ship name that I can recall. But that could have been the

name of the Vancouver-Victoria ferry that I had used often in about the same time. The ship could more likely have been another CPR Ship, and another Athlone Fellow, Neville Davis, supplied me with the correct information. In fact, he supplied me with the notice about CPR changing the ship from the Empress of England to the Empress of Britain. It was quite a sight for a traveling student who had only traveled on local ferries in BC waters. And Neville apparently spent the night in the Chateau Frontenac on the same top floor as me, on the other side of the elevator, and enjoyed its noise as much as I did.

Here's a note on the particulars of the ship, most of which I didn't know of at the time we sailed, but it's amazing what you can find on the internet.

The Empress of Britain

The Empress of Britain was built by Fairfield Shipbuilding in Govan near

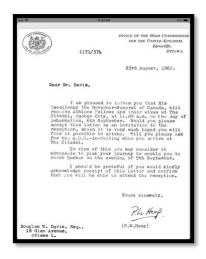


Glasgow, Scotland. She was launched on 22 June 1955 by HM Queen Elizabeth II. This was nearly fifty years after the EMPRESS OF BRITAIN: built by the
Fairfield Shipbuilding and Engineering
Company, Govan. Yard No: 731.
Official Number: 187376
Signal Letters: G V C N
Gross Tonnage: 25,516 Nett: 13,681
Length: 640ft Breadth: 85.2ft
Owned by the Canadian Pacific Railway

first CP Empress of Britain was launched from Govan in November 1905. Eleven months later, she set out on a maiden voyage from Liverpool to Montreal, leaving Liverpool on 20 April 1956.

The 25,516 ton vessel had a length of 640 feet, and her beam was 85.2 feet. The ship had one funnel, one mast, twin propellers and an average speed of 20 knots. The ocean liner provided accommodation for 160 first class passengers and for 984 tourist class passengers (this was our category).

Meeting Canada's Governor General



As I had said before, at the time of departure, I had forgotten and was unsure why the Athlone organization sent me to Quebec City, as the train had stopped the previous day in Montreal, where I thought that many of the 1962 Athlone Fellows would have gathered and boarded this same ship. As it turned out, though, my fellow Athlone, Neville Davis, supplied one of the answers: we had been advised that we would be meeting with Governor General George Vanier at 11 am of the morning of the departure, 6th September, 1962. For the life of me I cannot clearly remember this event,

which I might have had a partial loss of memory due to the late arrival of my cross-country rail trip. It might also explain why I was assigned to what was probably the last room in the hotel. But I vaguely recall going to this reception, but my memory of it has faded more than I wish to admit. In any case, there was an invitation and a reception, the details of which I seem to have forgotten. Maybe I was just a bit tired at the time? [It turned out that my Fellow Athlone Neville was in a similar room on the other side of the elevator!]

Boarding the Ship

But I am thankful, though, in that I do remember a boarding experience quite unlike any that would have occurred in Montreal, where boarding was a simple walk up the gangway and onto the ship. In Quebec City, however, and as I recollect, the ship was unable to tie up at the wharf, so I had to climb down from the wharf onto the stern of the Pilot tender—a relatively small boat, bobbing up and down in the waves. It was early in the morning, raining, and windy, making the entry onto the tender quite "interesting". Once on the tender, we headed out into the river channel where our ship was steaming downriver at what I presumed was a slow speed, but which seemed to be pretty fast to me, being quite inexperienced in performing this maneuver. The tender pulled up to the side of the ship, and an opening appeared as if by magic. There was some height difference from the bow of the tender to this

"landing zone", but the pilot and the tender crew assisted me in clambering on board the Ship. For reassurance, there was a rope net below the landing place, but I was fortunate enough not to need it. In any case, I was happy to have the opportunity for this unusual method of boarding the ship.

The Crossing, September 1962

Once on board the ship, I was introduced to most of the 40 1962 Athlones. And, at the first dinner, we discovered that there was a similarly sized contingent of nurses on our ship, recent graduates heading to the United Kingdom, too. The crossing started off with the ship sailing down river in calm waters, despite the wind and rain. Our route brought us down the Saint Lawrence River, into the Gulf of Saint Lawrence, where we sailed NE along the North Shore, and eventually passing through the Strait of Belle Isle, between Newfoundland and Quebec, and then into the North Atlantic. These days of sailing were peaceful and calm, where the 985 or so passengers were able to enjoy the cruising and the amenities available on the ship. Of special pleasure was the dining. I recall there being 3 or 4 dining rooms where really good food was served. And the group of healthy and young engineers, the Athlone Fellows of 1962, made quick work of the meals, leaving nothing behind. As did most of the passengers, too. But, when we passed into the North Atlantic, the calm behavior of the ship came to an end. In spite of the "modern" stabilizers (1955) vintage), the ship began to heave and yaw, and the enthusiasm for dining was remarkably diminished. Of the over 900 passengers, only about 100 showed up for the first service on the open seas, but the 100 included virtually all of the 1962 Athlone Fellows, and practically all of the nurses, too. There was food in great abundance. We gathered at our assigned dining room, finished our meal as usual. Then we were advised by our head steward that, if we were still hungry, we could go to the adjacent dining room which had not seen many passengers, and continue to eat as much as we wished. Most of the Fellows and nurses accepted this invitation. I might say that motion sickness was much less prevalent on these two groups of healthy and fit young people, and we tried to make sure that there was no food wasted. Over the next few days, as the seas gradually calmed, and as the passengers became used to the motion, our advantage in the dining room gradually disappeared. But we Athlones, and our nurse friends, didn't suffer from starvation issues.

Arrival in Liverpool, in mid-September of 1962

Eventually we found ourselves in Liverpool, right at the wharf, so disembarking was straight forward. We walked down the gangway, me with my large suitcase, and gathered in the pleasant morning weather—no rain that I can remember, but no sun either. It was pleasantly warm as we watched the unloading of the ship, which included the unloading of my trunk full of what I had thought would be needed for the basis of my 2 year stay. The luggage was lifted out of the hold, where it was loaded into a rope net. A crane lifted the net full of luggage, swung it over the wharf, and deposited the net onto an empty space on the wharf. Towards the end of the unloading I spotted my trunk, which I had not seen since it was unloaded from the train in Quebec City. As the net with my trunk swung over the wharf, I was relieved to see it again, until there was some lack of the usual smooth movement of the crane, and one of the pieces of luggage fell out of the net onto the wharf several feet below. It was my trunk! Fortunately, the trunk was quite sturdy and didn't seem to have been badly damaged, but that incident stayed with me to this day. After claiming our luggage, we found ourselves at the railway station. I cannot remember how we got there, or even if the station was actually at the wharf.

Arrival in London

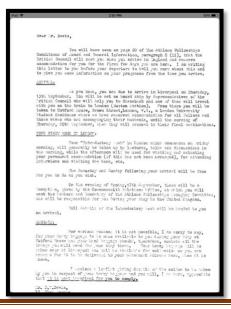
On 13th September, 1962, we arrived in London, and we were taken from one of the several Railroad Stations in the City, probably the Euston Station, in what to me was an interesting and bewildering trip to our first stop in the United Kingdom. The 1962 Athlone Fellows assembled at a women's dormitory, known as Nutford House [this name may be a slip of naming, as the place used

Nutford House was built in 1916 as a mental asylum and was acquired by the University of London in 1949, after which it was expanded to take in five terraced houses in Brown Street, known as the Annexe and one house in Seymour Place. Accommodation is provided for 223 men and women students in 181 single and 21 twin rooms.

to be a mental asylum, but the first "home" to the 1962 Athlone Fellows], part of the London Colleges. We Athlone Fellows, mostly if not all male in 1962, didn't mind having to

live in a Women's Dorm, and there were no objections to there being no women in residence. The residence not only provided us with a place to gather and bond, to sleep in relative comfort, but also to eat. I remember awaking in our

first morning there, making my way to the nearest communal washroom, taking a shower, dressing, and then joining in a search for the dining hall. There was an unusual scent in the air, not particularly pleasant, but growing stronger as we approached our destination. To our dismay, especially my own, the odor was coming from the dining hall and, worse, from the food area of our breakfast buffet. As the lineup approached the service area, I could make out that the source of the odor was a brownish looking somewhat meaty product that I was informed was "kippers", or smoked herring. The odor had become, to my nose, a smell, and a bad one. I passed on the kippers, and stopped at the next food station: it was what I would have called oatmeal porridge, but it was the thickest, glue-like porridge that I had ever encountered. But it was surprisingly tasty, especially when served with brown sugar and real cream. The next station was for toast, where the freshly made hot toast was carefully placed in specially designed devices to cool in the morning air, so that everyone could be assured of getting cold toast. The final station was for sausages and bacon—both exceptional. There might have been cold, dry, scrambled eggs, too, but I think that I must have passed them up, too. I note here that the smell of those kippers on my first day in London kept me away from kippers for almost 2 years, when I visited Aberdeen, and was in a situation where it would have been very impolite not to partake of the food being offered. So I hesitantly tried the Scottish kippers and found them to be delicious and delightful. But without that awful smell. I never turned down a non-smelly kipper again.

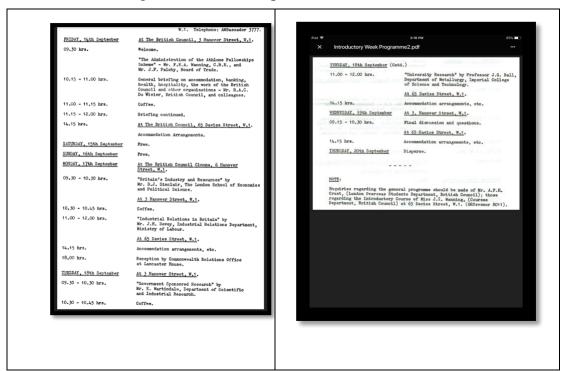


Nutford House, the students' dorm, was an excellent choice for us new visitors to London, and most of us took advantage by taking walking tours of the city. We visited many sights on foot, including: The Marble Arch, Speaker's Corner in Hyde Park, St. Paul's Cathedral, the Tower of London, the British Museum, Westminster, Buckingham Palace, etc., etc., etc. I don't remember walking so much in all my life. I was not alone in being amazed by many of these sights, and equally amazed by sights of the still remaining destruction as a result of the last war.

The first week in London was quite well organized for the 40 Fellows and the few wives. As we were advised by letter, the week was spent getting us used to how the Athlone Fellowship worked. Again, my fellow Fellow, Neville, had a copy of the letters that detailed the plan for us to absorb this knowledge. First was the letter that detailed what we would encounter upon our arrival.

Once installed, we were well organized by several days of lectures, starting the morning after our arrival, but having several days off (weekend days) for ourselves. Further, the information days were not exceptionally long, so we had many hours free to take in more of the city by taking many walks.

The instruction sessions were well detailed in letters that we had received well before our departure from our respective homes. Again, to illustrate how well the Athlone organization planned ahead for their new Fellows, I have included them below, using Neville's well-kept collection of Athlone information.



After the first week of joint participation with our fellow Fellows, we broke up and proceeded to our Athlone designated areas, some in London, and some throughout the United Kingdom. I found myself booked into London House,

on Guilford Street, near the Russell Square underground [read: subway] station on the Piccadilly line. It was a short walk to London House, and close to center London. And getting to Imperial College was pretty straightforward, take the Piccadilly Line to the South Kensington Station, only 8 stops away. Maybe 30 minutes, most of the time. This Athlone Fellow had arrived!

First Impressions — What can I say?

Dr. Ken Weale

Here is an obit note of my supervisor and friend from 1962 to 1965, written by the head of IC Alumni Relations, Peter Mee, after Ken's death in 1998.

The news of the death of Ken Weale on 7 May [1998] will have occasioned grief among a wide circle of past and present College staff and students. If ever there was an 'Imperial College man' then it was Ken Weale.

Ken grew up in Builth Wells and went to Aberystwyth where he took a first class degree in chemistry. After a year in industry as a research chemist he joined the Department of Chemical Engineering and Chemical Technology at Imperial where he completed his PhD thesis 'Solubility and diffusion of gases in polystyrene' in 1948. He was also captain of the College first XV rugby team and vice captain of the first XI cricket team—his two great sporting loves.

Ken then joined the departmental staff as assistant lecturer and in 1970 was



appointed reader in high pressure technology, in the light of a very substantial body of research work widely acknowledged in the UK and overseas. In the same year he also became assistant director of the department.

The caption for the picture reads: An image from a 1956 edition of Phoenix which carried the caption 'the sub-warden of the hostel, Dr K.E. Weale, quelling a

riot'.

His 1967 book *Chemical Reactions at High Pressures* was very well received and his reputation in the field remained worldwide, based strictly on the quality of his work rather than the quantity, for Ken had many other interests.

Senior treasurer of the IC Union since time immemorial—actually since 1955—he was the survivor of thousands of IC Union council meetings! Ken was also president of the Union rugby and cricket clubs and remained an occasional rugby player for the College well into his 50's.

Active in the Old Centralians, he was the author of the chemical engineering contribution to the City and Guilds centenary publication and was the instigator of the successful Jubilee appeal for the Department of Chemical Engineering. He was also college tutor for nine years. [Old Centralians Rugby Football Club is an English rugby union club based in Gloucester.]

Between 1963 and 1971 Ken was warden of Falmouth Hall and from 1973 to 1977 he was a member of the Governing Body.

In short, Ken was a man who devoted his life to the services of the College, operating particularly on the most difficult frontier—the interface between the College and the student body.

Ken Weale is a name known to and respected by generations of students and a host of colleagues. I had just persuaded him to write a history of the IC Union. There is no one to fill his shoes.

Dr. Ken Betts

He shared one end of the high pressure lab where I was doing my research, but in an adjoining office to Ken Weale's.

Ken was a very personable, but one who waited to be approached, and a very professional supervisor, who was known for continually smoking his pipe, and enjoying friendly discussion with the researchers in the area. He sat with Ken Weale during my PhD interview.

Dr. A. R. Ubbelohde

He was the Head of the Chemical Engineering Department while I studied at Imperial College as an Athlone Fellow, 1962-1965, he was very approachable and friendly, and he had impressive credentials:

Alfred René Jean Paul Ubbelohde FRS (14 December 1907–7 January 1988) was a Belgian-born English physical chemist.

Ubbelohde was born in Antwerp, Belgium, in 1907. He was educated at St Paul's School, 1920-1926 and at Christ Church, Oxford, 1926-1930. He was senior scholar

of Christ Church from 1931-1933. He then became a senior researcher in the Department of Thermodynamics at Oxford, 1933-1935. This was followed by excursions as a Dewar Fellow of the Royal Institution, London, 1936-1940 as Principal Experimental Officer at the Ministry of Supply, 1940-1945 and as Professor of Chemistry at Queen's University, Belfast, 1945-1954. He was elected as a Fellow of the Royal Society in 1951.

In 1954, Ubbelohde became a professor of thermodynamics at Imperial College London, a position he held until 1975. In 1961 he was awarded CBE; from 1961 to 1975 he was the head of the Chemical Engineering Department at Imperial College; following this he was a senior research fellow at Imperial College from 1975-1988;

Research—Ubbelohde's research interests included chemical thermodynamics, combustion, explosions and detonations, ionic melts, graphite and intercalation compounds. His group was the first to synthesise highly oriented pyrolytic graphite (HOPG). Over the course of his career, Ubbelohde wrote six books and some 400 publications. Ubbelohde was the chair of the Solvay Conferences on Chemistry (London), from 1959 to 1980. The Ubbelohde effect, which is the observation that dueteration increases hydrogen bond length, is named after him. He is also credited with coining the term proton conductor. He also is known for studying life from a thermodynamic perspective, and for his eccentric study of the thermodynamics of pigs. In 1960 he bought a pig farm where he raised over 100 pigs and studied them from a thermodynamic perspective. He authored numerous books on chemistry during his career.

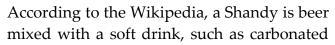
Awards and honours—Ubbelohde was elected a Fellow of the Royal Society (FRS) in 1951.

Diversity

London was then by far the largest city that I had ever experienced. It was, even then, more diverse a city than any place I had ever seen—even more so than Vancouver, and certainly more than was obvious in Edmonton or Victoria. The markets throughout the city exhibited wares an foods from all over the world, not like at home, where the weekend markets were either local or Chinese. What a change. Asian, yes, but not just Chinese. And also African, European, Latin American, from almost any area of the world.

A Shandy at the Club Pub

Yes—a Shandy is a wonderfully refreshing treat that I discovered while living not too far Wimbledon. from And, fittingly, discovered it at the local tennis club. No, not the world famous All England Croquet and Lawn Tennis Club, but just a local club. And, in the London area in the summer, it gets quite hot and humid when it's not raining. And, after a hard set, or between brief bouts of sunshine, it was just the refreshment that I needed to get ready for the next set, or to sit back and join in the conversation with the regulars.

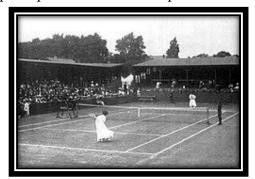




lemonade, ginger beer, ginger ale, apple juice, or orange juice. The proportions of the two ingredients are adjusted to taste, usually half-and-half. Non-alcoholic shandies are known as "rock shandies". Shandies are more popular in western Europe than other parts of the world. In some jurisdictions, the low alcohol content of shandies makes them exempt from laws governing the sale of alcoholic beverages.

A Shandy at the local tennis club, was a mixture of ginger beer and local bitter ale. The ginger beer, however, was cooled, not served at room temperature like the local ale. And the 50/50 mixture was just the right temperature and a good introduction to the drink. And, if you might wonder why I never did appear on Centre Court at the Wimbledon Tennis Club, it might have had something to do with enjoying Shandy more than playing tennis. Besides, it allowed me, a visitor from the colonies, to mix better with the locals at the club pub. My tennis club's name escapes me and I don't have a photo of it. But it was small and informal: see the photos on the next page of the variety of such Tennis Clubs in London.

perhaps not as old as this photo shows:



certainly not as advanced as this one:



War Scars

Many of the areas of London, especially the east end, have clean streets but have many bomb-damaged ruins, piles of rubble, blocks and blocks of devastation, as bad as we see in ruins of Iraq, Syria, and Afghanistan. Except for the open streets. Maybe I should use the term "neat rubble". I remember that I was completely shocked at the extent of the damage that still remained in 1962. Having to have lived in London during the War and amongst all of that destruction as it was happening, must have been completely shocking. Mild words, I know, with what we see nowadays, but in the early '40s, the people of London went through years of real Hell.

This became more personal to me when I attended the Remembrance Day



National ceremony, held in London at the Cenotaph on Whitehall. Two minutes' silence was held at 11 a.m., before the laying of the wreaths. The silence represents the eleventh hour of the eleventh day of the eleventh month in 1918, when the guns of Europe fell silent, according to Wikipedia. The silence is started by the Royal Marines buglers sounding *Last Post* and ended by Royal

Marines buglers sounding *The Rouse*. Gunners of the Royal Horse Artillery fired a gun salute at the end of the silence. The Queen was there and laid a wreath.

But what really struck me at the time was the open grieving and weeping by the wives (mostly, but many men, too) gathering around me. I had never experienced such an emotional display of almost each one of the several hundred people who had obviously suffered not only the destruction of the War, but also their losses of loved ones. The impact of the War was still an open wound to many of the City's populace.

The Victoria League

That's the short name for the *Victoria League for Commonwealth Friendship* (1901–present) is, according to Wikipedia, "a voluntary charitable organisation which connects people from Commonwealth countries. There are currently branches in the UK, Australia and New Zealand with affiliated organisations in Canada and the USA. The Victoria League in the UK had about 500 members in Britain in 2000 and their patron is Queen Elizabeth II. It is one of more than 80 non-governmental organizations (NGOs) that promote cooperation and peace within the Commonwealth of Nations. Overseas branches are autonomous, operating within their own countries regulations; however they all share the same history of birth."

You might ask—what can such an organization have to do with the Athlone Fellowship? Well, quite a lot, as it turns out. One of the Athlone Fellows of a previous year, and I cannot remember his name, suggested that I might be able to enjoy the benefits that the Victoria League could provide a student from the Commonwealth, like me, get to know London and beyond a little easier. So, I investigated and found that in return for attending a few of their evening meetings, usually with some kind of food, sometimes sandwiches and sometimes cakes and cookies, and tea, of course. At their insistence, I gave them a couple of talks on life in one of the colonies (Canada), about our history, our sports, etc. The ladies wanted assurances that, even though Canada was independent, it was still part of the "Empire", I quickly corrected to the name to "Commonwealth".

In return for this participation in their meetings, I was able to get seats in the Royal Boxes of quite a few venues in London, including at Royal Albert Hall, where I was able to enjoy many concerts. Also at some of the downtown theaters, where I was fortunate enough to see a couple of top-rate plays, such as *A Funny Thing Happened on the Way to the Forum*, and a Royal Shakespeare Company production of *Love's Labor's Lost*, in the Shakespeare theatre of the time

There were also many invitations to some of the ladies' homes for Sunday dinner. After going to a couple of these, I had a very interesting experience. I was invited for Sunday afternoon tea at a place near London, but far enough away to have to take a train to get close. It was close to Croydon, SE of London. The lady gave me very good detailed directions, so I had no problem finding the house, about 15 minutes' walk from the train station. At almost exactly 4 pm, I knocked at the door, which was promptly opened by a young girl, about 14 or so. She looked at me, closed the door on me and called out another name. The owner of the second name came to the door and opened it for me. She was about 20, I had guessed, and found me more acceptable than her younger sister. I had a rather interesting tea with the mother and the older daughter, and without the younger daughter making any more appearances. It was quite obvious that the mother had been looking for a suitable connection for her daughter with an acceptable scholar from one of the colonies. Although the daughter was fairly attractive, the setup wasn't one that I wanted to follow up. But otherwise, the Victoria League was good to me.

The Royal Society

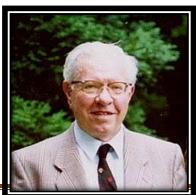
While in London, one of many unforgettable opportunities arose—to attend a



meeting of the Royal Society, held in the Society's main offices and the venue for many of of their events. The address was Carlton House, 6-9 Carlton House Terrace, London SW1Y 5AG in central London. The Royal Society, or named in full: the Royal Society of London for Improving Natural Knowledge, is the oldest national scientific society in the

world and the leading national organization for the promotion of scientific research in Britain.

One of the meetings held when I was in London featured a cosmologist who was a student of Einstein, giving a paper as follows: **The C-Field as a Direct Particle Field**, by F. Hoyle and J. V. Narlikar, *Proceedings of the Royal Society of London*.



Page 21

Series A, Mathematical and Physical Sciences, Vol. 282, No. 1389 (Nov. 3, 1964), pp. 178-183. Not that I had any idea of the subject. However, my several summers working at the Dominium Observatory near Victoria, BC, brought me into contact with many visiting astronomers who gave guest lectures on astronomy and cosmology, and many made references to the theories of Fred Hoyle. I had already been exposed to Albert Einstein and his theories, and held him in high esteem. And I was aware of Fred Hoyle and his new theories of gravity, following Einstein's arguments. So, when I found out that Fred Hoyle was going to attend a meeting of the Royal Society, I had to attend. So, I did. And came close to one of the most knowledgeable men in the field of cosmology, along with one of his esteemed students. Quite a thrill, and totally unexpected.

Winston Churchill



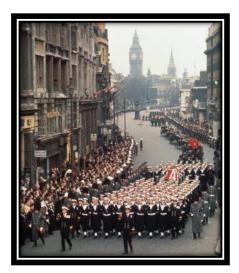
Of course I knew that London was the residence of Winston Churchill for the time that I was there. He was such a historical hero of mine that I was too awed to seek an audience. But I made sure that I was close enough to see him as a person who was showing his age. In fact, he died in the Spring of 1965

(January 24, 1965), while I was still in the United Kingdom. He was, and still is by many, considered to be the greatest Britain of all time. His London home was at 28 Hyde Park Gate in Kensington, London



SW7. The fine attached brick house stands in a quiet cul-de-sac, close to Hyde Park and Kensington Gardens.

His funeral, of which I observed only part of the procession, and according to the Wikipedia, was the largest state funeral in world history up to that time, with representatives from 112 nations; only China did not send an emissary. In



Europe, 350 million people, including 25 million in Britain, watched the funeral on television, and only the Republic of Ireland did not broadcast it live. By decree of the Queen, his body lay in state in Westminster Hall for three days and a state funeral service was held at St Paul's Cathedral on 30 January 1965. One of the largest assemblages of statesmen in the world was gathered for the service. Unusually, the Queen attended the funeral because Churchill was the first commoner since William Gladstone lie-in-State. As Churchill's lead-lined coffin

passed up the River Thames from Tower Pierto Festival Pier on the MV *Havengore*, dockers lowered their crane jibs in a salute. The Royal Artillery fired the 19-gun salute due a head of government, and the RAF staged a fly-by of sixteen English Electric Lightning fighters. The coffin was then taken the short distance to Waterloo station where it was loaded onto a specially prepared and painted carriage as part of the funeral train for its rail journey to Hanborough, seven miles northwest of Oxford.

He was, and still is, my first place hero, even in spite of the 2020 protesters.

The Last Great Smog of London

Little did I know that London would quickly introduce me to real fog. No—make that *FOG*. No, it was **SMOG**. In fact, it was a deadly, choking, smoggy foggy *SMOG*!.

The fog started on Monday, December 3rd, almost a decade, to the day, of London's last real *SMOGGY FOGGY SMOG* in December of 1952. And it didn't clear up until the following Friday, December 7th. The news story of the morning of December 6th, 1962, read:

Choking fog spreads across Britain

A thick layer of fog which has covered London for the last three days is spreading all over the country. Leeds has recorded its highest ever level of sulphur dioxide in the air and pneumonia cases in Glasgow have trebled.

A spokesman for London's Emergency Bed Service said 235 people had been admitted to hospital in the last 24 hours and issued a "red warning" to prepare for more patients as thick fog continues to affect public health.

So far 90 people have died since the crisis began and the fog is not expected to lift for another 24 hours.

DIY masks recommended

The Ministry of Health is warning those at most risk, such as sufferers of chest and heart complaints should "stay indoors and rest as much as possible". The ministry's medical advisors said doctors should prescribe masks for vulnerable patients or "do-it-yourself masks" such as thick cotton gauze or a scarf around the mouth and nose.

General advice to the public was also issued:

- Only use coke or other smokeless fuel
- do not bank up coal fires at night
- don't burn rubbish or light bonfires
- keep windows closed and draughts out.
- Icy roads

The fog has now spread to 22 counties of England making driving conditions extremely hazardous with visibility varying from zero to 50 yards (45 metres).

Black ice was another danger affecting London, most of the south, East Anglia, the Midlands and Yorkshire, according to the Automobile Association.

One AA spokesman described the icy stretch of road on the A12

near Chelmsford as "a battlefield" after a series of minor accidents.

A scene of traffic jams, queues, breakdowns and abandoned cars recalls a picture not seen in this country for ten years when Britain was smother by the so-called Great Smog of 1952 that claimed some 4,000 lives.

Since then the Clean Air Act has been enforced but only dealt with the smoke emissions and not the discharge of sulphur dioxide.

The level of smoke in London's atmosphere today was two and a half times higher than for an average winter day - and the level of sulphur dioxide was seven times higher, according to figures produced by the Department of Scientific and Industrial Research.

The news article reminded the people of London that they shouldn't have this fog on the basis of what they had done as a result of the 1952 episode, which was much worse:

In response to the smog of December 1952, the Clean Air Act was introduced in 1956. It restricted the burning of domestic fuels in urban areas with the introduction of smokeless zones, but fogs continued to be smoky after the act as residents and operators were given time to convert.

The act was revised in 1968 when industries burning coal, gas or other fuels were ordered to use tall chimneys. In 1974 the first Control of Air Pollution act introduced regulations on the composition of motor fuels.

By the 1980s and 1990s the increasing use of the motor vehicle led to a new kind of smog caused by the chemical reaction of car pollutants and the sunshine.

The 1995 Environment Act introduced new regulations for air pollutants. Local authorities have been given air quality targets to reach by 2005.



Not only was there fog—smog—it was a filthy dirty **SMOG**. But, being a poor

student, living in London House in downtown London, without a TV or radio, I had no idea that there was anything unusual happening that day. Except that I awoke to an unusually quiet city. I remember glancing out the window to see what was going on, but it was early, overcast, and gray. Much the same as usual for December in London, but quiet!



After breakfast I prepared for the daily trip to Imperial College, and set out. It was foggy. And much thicker than I had ever experienced in Victoria, BC. You could barely make out the edge of the sidewalk, even if you were walking midway between the curb and the adjacent building. And it didn't take long for me, and the few others with me, to start to feel a choking sensation in our throats. And even though it wasn't warm at all, the high humidity caused us to feel hot and to have to wipe our face. We found a blackish yellowish greenish film on our hands, or on our handkerchiefs. And when we reached the Russell Square tube station, we were starting to wonder just what kind of day it would be. And, after making our way to the tube station, we discovered that the tube wasn't running that morning. So we returned to London House.

Later we had learned just what we had been walking through—and how sickening it could be for people who were older, who had breathing problems, or lower resistance to infection. Although we students were in good health and reasonably well conditioned, the general population of London suffered considerably from this multi-day condition. Several hundreds of people had to be hospitalized, and the Smog caused many deaths.

An initial report on the smog is poorly reproduced here, showing just how



extensive and disruptive the fog was not only in London, but throughout the whole of Europe and even in North America, mainly because of the importance of the London airport. The article identified that there were about 340 immediate deaths, mainly of people over 70 years of age, with the most on the Friday, when the smog was most severe.

The 1956 environmental act took a long time to become effective, but it worked: The great yellow fog in 1962 was the last. Since then, despite the belief in some parts of the world, not least the United States, that there are still foggy days in London town, the "pea soupers" have become a thing of the past. But it sure

made an impression on me in those few days of 1962.

The Winter of 1962–1963

Apart from the Smog, the first winter in London was a very cold, damp, uncomfortable winter for me. Even though I had grown up in Alberta, where there were many winter days of extreme cold, that first winter was a bit of a shock. Maybe partly because of my life in Victoria. But my previous four winters were in Edmonton. There, the coldest corner of the country was generally known to be at the intersection of Jasper Avenue and 101st Street. Those from Winnipeg would claim that Portage and Main is colder, but I have experienced both. And Edmonton gets the nod.

In spite of that, London was, that one winter, was the coldest I had ever experienced. Wikipedia has an article about that winter:

The winter of 1962–1963 (also known as the Big Freeze of 1963) was one of the coldest winters on record in the United Kingdom. Temperatures plummeted and lakes and rivers began to freeze over.

In the Central England Temperature (CET) record, extending back to 1659, only the winter (defined as the months of December, January and February) of 1683–84 has been significantly colder, with 1739–40 being slightly colder than 1962–63. Over Scotland and Northern Ireland, where data does not extend back to 1740, the winters of 1813–14 and 1878–79 were certainly colder than 1962–63, as was the winter of 1779–80 in Scotland and 1894–95 in Northern Ireland.

This winter remains the coldest since at least 1895 in all meteorological districts of the United Kingdom except Scotland North, where the two winters of 1978–79 and 2009–10 were marginally colder.

But as a student, who actually spent a considerable time studying in the evenings after returning from Imperial College, and living on the top floor of the London House residences, with little or no heat, things were fairly uncomfortable. Even sleeping was a problem when it was so cold. Finally, I decided to do something about it. At a nearby street market I purchased a sheepskin rug. I wore that rug over my shoulders when I was studying, and on my bed when I was sleeping. It worked quite well at my studies, and I was able to enjoy sleeping, too. That sheepskin rug followed me for many years, finally disappearing during one of the many moves that followed.

Some illustrations show London that winter:





Wind is hard on umbrellas

and here's Piccadilly Circus with snow

And it was so cold and snowy just north of London that the weight of snow and ice on the phone lines stretched them in ways we couldn't believe:



The severe winter weather continued from late December 1962 until early March 1963. And following winters were mild compared to that one. But I had kept my sheepskin rug just in case the weather changed.

Holiday in Devon

While in London, especially after what I thought was a pretty hard winter, my



feet were getting the itch to go somewhere else. So, with 3 other Fellows, there was a trip organized. The targets included: warmer than London; not too expensive; and not too long to avoid missing too much College time. Assessing these, we ruled out Scotland, Wales, and Ireland. But the Devon area seemed to fill all the requirements. So, in

approximately mid-May, we four took a train to Exeter which we used as a central point for further exploration. I don't recall just where we stayed, but that the lodging was supplied by the tour company.

From that unknown, or at least non-recalled, hostel, we explored the City of Exeter, including the famous 12th Century Cathedral. Somehow, in spite of being a Chemical Engineer, I have also been fascinated with the wonders of



architecture, especially of the very old but still outstanding architecture that still



endures. And the Exeter Cathedral is one fine example.

Exeter Cathedral, properly known as the Cathedral Church of Saint Peter in Exeter, is an Anglican cathedral, and the seat of the Bishop of Exeter, in the city

of Exeter, Devon, in South West England. The present building was complete by about 1400, and has several notable features, including an early set of misericords, an astronomical clock and the longest uninterrupted vaulted ceiling in England. Of all of these features, the vaulted ceiling is the most notable. But the overall view of the Cathedral is also inspiring.

Of special note was the Astronomical Clock. According to Wikipedia, the Exeter Cathedral Astronomical Clock is one of the group of famous 14th- to 16th-century astronomical clocks to be found in the West of England. Others are at Wells, Ottery St Mary, and Wimborne Minster.

The main, lower, dial is the oldest part of the clock, dating from 1484. The fleur-de-lys-tipped hand indicates the hour (and the position of the sun in the sky) on a 24-hour analogue dial. The numbering consists of two sets of Roman numerals I to XII. The silver ball and inner dial shows both the age of the moon and its phase (using a rotating black shield to indicate the



moon's phase). The upper dial, added in 1760, shows the minutes.

The Latin phrase Pereunt et imputantur, a favourite motto for clocks and sundials, was written by the Latin poet Martial. It is usually translated as "they perish and are reckoned to our account", referring to the hours that we spend, wisely or not. The original clockwork mechanism, much modified, repaired, and neglected until it was replaced in the early 20th century, can be seen on the floor below. The door below the clock has a round hole near its base. This was cut in the early 17th century to allow entry for the bishop's cat to deter vermin that were attracted to the animal fat used to lubricate the clock mechanism.

But our visit to Devon was not confined to the City of Exeter. From that unknown, non-recalled, hostel, we took a coach tour of Devon. We visited several places in Devon, but I was not in the mind to take photos, nor notes, of the places we visited. But we did really enjoy the stops.

Of all my recollections, the most outstanding ones were the several stops we made for refreshments. Being in May, every stop included the famous Devon



Cream Tea with lots of fresh strawberries as well as the usually served strawberry jam. These stops were usually in the dining room of a local inn. There were usually a dozen or so square tables, each set for 4 travelers. In the center of the tables was a large platter, heaped with fresh scones. Beside the platter was a large bowl, filled to more than overflowing with fresh strawberries, accompanied by a large jar of strawberry jam,

apparently "homemade", and another large bowl of Devonshire clotted cream. For us four travelers, young engineering students in our early twenties, always being hungry, this was more than delightful. It was an opportunity for us to eat well. So, we did. At the first such stop, we stopped at the first table, and the four of us ate the whole lot of scones, strawberries, cream and jam. And then we asked for more. The waitress promptly brought another complete replacement order, in which we quickly made a large dent. Then it was time to move on, so we re-boarded the bus and headed to the next stop. Lo and behold, wherever it was, the stop included a very similar Inn, with identical setup of scones, strawberries, Devon clotted cream and strawberry jam. Which we thoroughly enjoyed, but we did not request a refill of the empty platter, bowls, and jam jar. On the third stop, which included an identical Inn and tea, we somehow discovered that the correct protocol at these stops was for each traveler to have one scone, with a spoonful (heaping is ok) of each of the accompaniments. I guess that we had overdone the hospitality offered to us. And nobody told us either until our third stop. But, still being young and still

growing engineers, we had enjoyed every crumb of the scones, every strawberry, every heaping tablespoon of clotted cream, and every spoonful of strawberry jam. And we noted that we were not too hungry for dinner when we returned to the hostel.

I was interested, too, in how the tradition of the Devonshire Cream tea originated. Local historians in Tavistock, west Devon have been studying ancient manuscripts as part of research around the 900th anniversary of the granting of Tavistock's Royal Charter by King Henry I in 1105. After piecing together fragments of manuscripts, they've discovered that the people we have to thank for creating Devon's favourite dish are the monks of Tavistock's Benedictine Abbey. The Abbey was established in the 10th century, but was plundered and badly damaged by a band of marauding Vikings in 997AD. It took a lot of hard work to restore the Abbey, and the task was undertaken by Ordulf, Earl of Devon. His father Ordgar, Earl of Devon, had been responsible for establishing the Abbey in the first place. Ordulf was helped by local workers, and to reward them, the monks fed them with bread, clotted cream and strawberry preserves. And so, the Devon cream tea was born! The cream teas were so popular, that the monks continued to serve them to passing travelers. And, my group of four Canadian engineers really appreciated the Tavistock Benedictine Abbey.

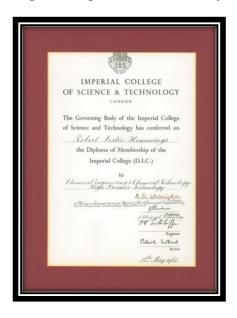


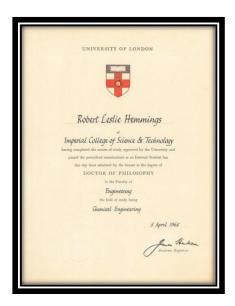
Here is a short note on the Tavistock Abbey, taken from Wikipedia. It is also known as the Abbey of Saint Mary and Saint Rumon, a ruined Benedictine abbey in Tavistock, Devon. Nothing remains of the abbey except the refectory, two gateways and a porch, and the remains of the cloister arches. The abbey church, dedicated to Our Lady and St Rumon, was destroyed by Danish raiders in 997 and rebuilt under Lyfing, the

second abbot. The church was further rebuilt in 1285 and the greater part of the abbey between 1457 and 1458. But the tradition of the Devonshire Cream Tea remains.

The Completion of my Athlone Fellowship

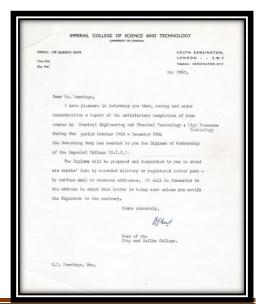
After almost 2 ½ years in the United Kingdom, I finally completed my research and my Thesis, and came away with a DIC (Diploma of Membership of the Imperial College), and a PhD (Doctor of Philosophy in the Faculty of Engineering, the field of Study being Chemical Engineering).





In addition to these documents, I was also presented with letters from the Imperial College advising me of these awards::





Copyright © 2021 RL Bob Hemmings

The Thesis

In order to qualify for such recognition, it was required that a Thesis must be submitted. Now, although I did take "typing" as part of my high school education, I never excelled at this skill. Nor did I have a typewriter. And certainly not a computer. Fortunately, my girlfriend, who later became my wife, was a typist, and she did the typing from my poor quality handwritten notes, and the Thesis had to be typed on Gestetner sheets, which were not easy to use or to type on. But, in those days, that was what was used by the University of London, Imperial College, for all duplicating work. [The Gestetner is a type of duplicating machine named after its inventor, David Gestetner. During the 20th century, the term Gestetner has even been used as a verb—as in "Gestetnering", like "Xeroxing". The Gestetner company had established its base in London, filing its first patent in 1879. Wikipedia].

A manual typewriter was the tool for typing the 169 pages of my Thesis, as electric ones were far too expensive to buy, or even rent, if they were even available in 1962. And, of course, there was no Word Processing program either. As a result, the inevitable corrections and changes resulted that each page that had to be corrected, had to be re-typed. And in such a way so that the last wording on the corrected page had to be spaced out to tie in with the first on the following page, or that page would have to be retyped as well. And, once typed several times, copies were made and sent to the examining committee. After initial discussions with the committee, there were inevitable changes, which resulted in more retyping. And, for the final submission, I was allowed some hand-made changes with ink. Especially on the equations that were almost impossible to type, and ended up with a less "clean" looking document than I would have preferred. Fortunately, the Head of the Department and my two examiners understood the complication of using limited technology in producing the Thesis.

And, thankfully, the Thesis was accepted and as a result of defending it, I was awarded my degree. And, in spite of the relatively informal method of preparation, it was incorporated into the Electronic Library of IC Theses, and I was able to download a pdf copy.

Imperial College Graduates — Recovering your Thesis

If, as happened to me, your copy of your thesis gets lost, either in your many moves, or your chosen storage area gets flooded, or burns down, you can recover your thesis. That is, if you are a graduate of Imperial College. It happened to me. I had a bundle of papers that were the original hand-typed pages of my Thesis as submitted back in 1965. Those were done the days of manual, not electric, typewriters, with limited access to characters other than those on the keys. This made for a number of manually entered symbols and sub- or super-scripts, especially in mathematical or chemical equations. Even some manual corrections were then acceptable in those days. So, my old Thesis was more than just words—it included a lot of sweat and headache just in its production, let alone in doing the research upon which it was based.

So, when my Thesis disappeared it left a "hole" in my memory that was more disturbing than I had ever thought it might have been. To resolve this issue, I sent a simple request to the Chemical Engineering Department, addresses to the current Department Head, Dr. Nilay Shaw. Within hours he responded to my request, and advised me to make a request to Sara West, Communications Officer—Department of Chemical Engineering, Room 308, ACE Extension, South Kensington, London SW7 2AZ (Email: sara.west@imperial.ac.uk, Tel: 020 7594 6607). Almost immediately Sara advised me to approach Lyudmila Baranova, the Manager, Content and Discovery: Document Delivery Service, Central Library, Imperial College London, South Kensington Campus, London, SW7 2AZ, United Kingdom. Her Email address is: m.baranova@imperial.ac.uk. Within a day I received directions for downloading a pdf copy of my Thesis.

If you are looking for a pdf copy of your thesis, please note that the College has recently made its PhD theses freely accessible to all from the College's repository Spiral:

https://spiral.imperial.ac.uk/

And, if your thesis hasn't yet been digitized, and not listed in Spiral, please contact the College by email <u>ill@imperial.ac.uk</u>. The thesis will be digitised, free of charge.

Well done, Imperial College!

Many thanks from one of your not so recent graduates!

The Appearance of the Thesis

The best way to demonstrate the appearance of the Thesis is to include a few pages. First, the title page:

POLYMERISATION AT HIGH PRESSURES LIQUID-SOLID BOUNDARY A thesis submitted for the degree of Doctor of Philosophy in Engineering at the University of London by Robert Leslie Hemmings, B. Sc. (Chem. Eng.) Department of Chemical Engineering and Chemical Technology Imperial College of Science and Technology London, S. W. 7 MARCH, 1965.



And a page with some equations, with considerable hand-written entries:

17

$$K_{\lambda} = \frac{(\lambda_{L})^{\ell} (\lambda_{M})^{m} \cdots}{(\lambda_{A})^{\lambda} (\lambda_{A})^{\lambda} \cdots}$$
18

so that equation 17 becomes:

RT in
$$K_{L} = \lambda_{\mu} + b_{\mu} + \cdots$$

$$- i \mu_{L} - m \mu_{L} - \cdots$$
19

The molar volume of component J in the standard state, V, , is given:

$$A_{\bullet}^{2} = \left(\frac{9}{9} \frac{\lambda_{\bullet}^{2}}{\lambda_{\bullet}^{2}}\right)^{2}$$

Equation 19 can now be written:

$$\left(\frac{\partial RT \, \ell_N \, K_A}{\partial P}\right)_T = \lambda \, V_A^{\circ} + b \, V_B^{\circ} + \dots - \ell \, V_L^{\circ} - m \, V_M^{\circ} - \dots$$

$$= -\Delta V^{\circ} \qquad 21$$

where AV is the excess of molar volumes of products over those of reactants, all in their standard states.

For reactions in solution, particularly where components are present in comparable quantities, concentration is conveniently expressed in mole fractions, x, , of component J. The activity, a, , is related to the mole fraction by the definition:

22.

And one with some handwritten corrections

28

i - High Pressure Equipment

Many workers (26, 55-62) have described the design and construction of high pressure equipment and among these Bridgman (55) has, perhaps, contributed most. The equipment used in the present study has been described previously (39, 63-67) in detail, so only a general description will be given.

The three vessels used are capable of containing pressures of 15,000, 5,000, and 4,000 atmospheres respectively.

In all three, the pressure transmitting medium is an oil, either liquid paraffin, B.P. or DTD 585 (hydraulic oil).

Also in all three, the moderate pressure delivered by the pump is increased to a high pressure in the reaction chamber by use of a pressure intensifier. Low pressure is applied to a large piston of area "A"/into the reaction chamber, or extension thereof. Thus, neglecting friction, the low pressure is intensified by a factor A/a. All three vessels employ a by-pass around the intensifier so that the reaction chamber can be primed to between 500 and 1,000 atmos. by direct action from the pump. Only in this way can miximum pressure be attained (because of the limited travel of the intensifier pistons).

The 15,000 atmos. vessel (64, 67) is sketched in figure 1. The upper portion is the pressure vessel proper. It consists of an autofrettaged cylindrical monobleck of "Vibrae V45" steel, V, six inches in diameter. The reaction chamber, R, is centrally located and has a diameter of about 0.6 inch. The steel plug, S, is screwed down on a steel mushroom head, M, which holds a Poulter packing or hard rubber bung, B, against the gigh pressure in R. The side entry, S', allows the reaction chamber to be filled with oil and primed to initial pressure from the pump. At

Copyright © 2021 RL Bob Hemmings

The Athlone Program Evaluation

During the early operation of the Athlone Fellowship Program, there was no formal communication between the program organizers and administrators, and the Athlone Fellows except for the Athlone Conferences, every 2 years. After five years, an annual newsletter was initiated, and was produced every year until the program was terminated in 1970. One of the best indicators of how the program was working was the Forward and the Notes of each of the Newsletters that I was able to locate—all but the first 5 issues.

Although I was not able to locate a formal evaluation of the Program in any of the documentation received, it seems obvious to me that this Athlone program was really excellent for the Engineers that were honored to be selected. However, a formal analysis of the impact of the program on the trade in British engineering goods and services seems to be lacking, as there appears not to be a method to be used to make this evaluation. And such a method could be quite complex, probably more than a simple comparison of increases in British trade with Canada as a function of time and number of Athlone Fellows, perhaps with a delay of 10 years after the Athlone Fellows' award date.

I can only conclude that the Program, once initiated, was part of a complex government funded program that was not too large to attract too much attention until, eventually, it was questioned by the Department of the Treasury. Once questioned, it was subject of some kind of a study, to which I have previously referred, and could not be defended in the political arena, and was thus terminated.

For as many of the Fellows as I was able to contact, the Program was exceedingly successful. It brought new experiences to over 800 well qualified Canadian engineers, experiences that most would not have otherwise experienced. For many, like myself, the Athlone allowed them the pleasure and privilege of visiting the heart of the British Commonwealth, and also the benefit of earning an advanced degree from a prestigious British university, or acquiring unique engineering experience at a leading British engineering industry. In addition, all the Fellows had the opportunity to see and to live the British experience during those two redevelopment decades following the end of the Second World War.

Thank you, Athlone Fellowship Program!

Conclusions

In my own case, being an Athlone Fellow provided me with professional opportunities that certainly would not have been open to me without it. With the words "Athlone Fellow" on my resume, I was more interesting to more industries than I would have been otherwise. And the Athlone experience, especially at Imperial College, was an experience during which I learned how to learn, which is recognized by my attainment of my PhD and DIC from Imperial. Further, with that experience I was able to make a success in the many aspects of my career, mainly in the field of nuclear power engineering, from R&D through design, to commissioning, to operations, to waste management, and to decommissioning.

My thanks to the Athlone Fellowship Program

R L Bob Hemmings

Acknowledgements

The following Fellows have been of great help, especially in locating information on the Athlone Fellowship Scheme, and offering advice on the earliest versions of this work. Without their assistance, this would have been a very poor effort. But their interest, encouragement, and generosity makes the work more complete. I am sure that I might have omitted some, and I apologize.

Dwight Aplevich	Bill DeCoursey	Arthur Plumpton
Jack Banks	Gary Elfstrom	Ian Rowe
Tom Carter	Bob Frederking	John Sankey
Peter Castle	Ken Johns	Brian Staples
Murray Clamen	Neil MacKenzie	David Stone
George Davies	Ken Montgomery	Eric Thomson
Neville Davis	Fred Parkinson	Ron Weir

And, without the support of my wonderful wife, Micheline, who had to put up with me being distracted over the past many months while I tried to bring order to all the information that I eventually gathered. And who reminded me of various stories about my stay in the UK during my stay with the Fellowship.

My thanks to all!